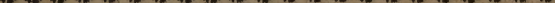


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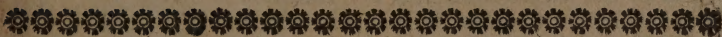
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A Work of this kind can want no apology for its publication, or any thing to be said in Recommendation of the Subject; for what I have to say concerning it must be of the Design, and the Manner of its Execution. As to the former, it will sufficiently appear by the Title-Page, that this Work was calculated to fill the vast regions of the Arts and Sciences Philological, to moderate Bounds, and within the reach of common Peoples Pockets. No thing has more obstructed the Progress of the Sciences, than the Bulkiness and Price of Books. Large Treatises are designed to enable a Man to form a critical Notion of every Part of the Subject; but how very few Gentlemen do we find who will give themselves that trouble? Most Readers think they succeed very well, if they can acquire but a general Idea of Things; not is it for Men of Business to aim at much more, be their Fortunes what they will: And Gentlemen of Letters and Learning, if they want Genius, of Confidence, and not much for Books at all, much less are they anxious about the Size or Substance of them. It is evident, therefore, that a Description or Account of any Art or Science (especially the Library) is best adapted to answer the Ends and Views of the general





THE PREFACE.



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The P R E F A C E.

Part of Readers. And I wish even Epitomes themselves were not thought so tedious as they too often are by such Persons who yet claim to be deem'd polite, and to have a Taste for the *Belles Lettres*.

As to what concerns the Execution of this Work, I have only this to say, That from a great Number of the best Books on each Subject, I took Pains to collect the best Materials for forming such an Epitome of each Art or Science, as might give the Reader a general and just Idea thereof, without the Trouble and Expence of larger Volumes. Nor are the Treatises in this Book rude Draughts or Sketches, but strictly Methodical, and Systems form'd by technical Rules, and therefore very proper for Youth to form their Notions by.


With Regard to this second Edition, it will be sufficient to say, that I have made no Addition or Alteration, but of typographic Errata, or some few Faults which escaped in the first Impression. As there can be none so unreasonably greedy of Knowledge, as to think they have not enough in this Book for their Money; so it was unnecessary to add more; nor could it be done consistent with common Justice to my Subscribers, who enabled me to publish it at first, and took off so great a Number of the Impression; and therefore merited a Right to all the Advantages the Book should ever have. I therefore send it abroad once more, as it came out of my Hands, and trust its Fortune to its Merits, desiring no more than an Acceptance of this, or any other Book of mine, proportional thereunto.

Chichester, March

18, 1740.

THE

THE CONTENTS.

	<i>F</i> THEOLOGY, or the Existence of a DEITY,	Page 1
	Of ETHICS, or MORALITY,	9
	Of the CHRISTIAN RELIGION,	20
	Of JUDAISM, or the RELIGION and STATE of the JEWS,	36
	Of MAHOMETANISM, or the LIFE, RELIGION, and POLITY of MAHOMET,	51
	Of PAGANISM, or the DIVINITIES of the HEATHEN, and the WORSHIP paid to them,	65
	Of MYTHOLOGY, or an EXPLANATION of the Fabulous HISTORIES of the HEATHEN GODS and HEROES,	84
	Of LANGUAGE and GRAMMAR in general, and particularly that of the ENGLISH TONGUE,	100
	Of RHETORIC and ORATORY, or the ART of Speaking with ELOQUENCE and PERSUASION,	126
	Of LOGIC, or the ART of REASONING,	149
	Of METAPHYSICS or ONTOLOGY, or the SCIENCE of BEING abstractedly considered,	176
	Of the ART of POETRY,	196
	Of CRITICISM,	215
	Of GEOGRAPHY, or a DESCRIPTION of the Globe of LAND and WATER,	230
	Of	

The CONTENTS.

Of CHRONOLOGY, <i>or the</i> DOCTRINE of TIME,	264
Of HISTORY, <i>and the</i> ORIGINAL of NATIONS and KINGDOMS,	284
Of PHYSIOLOGY, <i>or</i> NATURAL PHI- LOSOPHY,	316
Of BOTANY <i>or</i> PHYTOLOGY, <i>or the</i> DOCTRINE of VEGETABLES,	341
Of ANATOMY, <i>containing a brief Descrip- tion of all the Parts of an</i> HUMAN BODY,	359
Of PHARMACY, <i>or the</i> Art of compounding MEDICINES,	491
Of CHEMISTRY,	513
Of PHYSIC, <i>or the</i> THEORY of MEDICINE <i>and</i> DISEASES,	414
Of SURGERY,	438
Of POLITY <i>and</i> OECONOMICS,	445
Of JURISPRUDENCE,	467
Of HERALDRY, <i>or</i> Art of Blazoning Coat-Armour,	484
Philologico-Mathematical MISCELLANIES,	501



Of THEOLOGY, or the EX-
ISTENCE of a DEITY; and
the FIRST PRINCIPLES of
NATURAL RELIGION.



MAN only, of all other Beings, is able so to view and consider Things which appear all around him, that by duly comparing one with another, and a just Method of Arguing, or Reasoning from Effects to their Causes, he can at last easily arrive to, or make a Discovery of a *Prime or First Cause*,

Man only rational and able to discover the Being of a God.

the *Great Author and Maker of all Things*, and which, by us, is called **G O D**.

AND as the *whole Frame and Order of Things*, which we behold, is what we call *Nature*; so that Act of the Mind whereby we consider and compare Things, according to their *various Natures and Relations*, and deduce from thence the *Existence of a God*, is what we call *Reason*. And the Arguments and Motives which are afforded us from the View and Prospect of Nature in her several Parts, and whereby we are induced and inclined to give our Assent to the Doctrine of the Being of a God, is what we call the *Light of Nature*.

Nature.

Reason.

Light of Nature.

AND e'er we reckon six, eight, or ten Years from our Births, we are able, in some Degree, to exert this noble Faculty of Reason, and make some Progress in the divine Discovery aforesaid, *viz. of God's Existence and moral Qualities*; And this Faculty of Reason, as we grow in Years, becomes more strong and perfect, and works on the pure and untainted Mind with native Force, and such powerful and clear Proof, as we can neither deny nor withstand. And thus, as Saint Paul

Reason capable of discovering a God.

Rom. i. 19,
20.

(or indeed can be known of him by us) is manifest in the Works of Creation ; even his eternal Power and Godhead is clearly seen, being understood by the Things which are made. So that all Persons, capable of Reason, are without Excuse, who do not readily acknowledge the Being and Glory of God.

*The Voice of
Nature uni-
versal,*
Psal. xix. 1,
2, 3.

*and loudly
proclaims a
God.*

*The various
Sorts of creat-
ed Beings.*

First Class.

Second Class.

*Third Class,
Animals.*

*Fourth Class,
Mankind, the
most perfect of
all others.*

NOR is there any Part of Nature within our View, (nor any Place where there is not such a View of Nature) which doth not loudly call upon us to receive and confess this great and divine Truth. The Heavens declare the Glory of God ; and the rich Furniture thereof, the Sun, the Moon, and Stars, shew themselves to be his Handy-work : Day unto Day uttereth Speech, and Night unto Night sheweth Knowledge. There is no Nation on the Face of the whole Earth, where their Voice is not heard ; for it is gone thro' all the Earth, and their Words to the End of the World.

FROM hence we are naturally led to survey and make a proper Distinction and Arrangement of the Works of Nature : We see all Things consist of Matter, which is for the most Part obvious to our Senses ; and we are most agreeably surpris'd with a wonderful and infinite Variety of Forms, Conditions, and Qualities of natural Substances. Some Parts of Matter we observe to be without Motion, Sense, or Life, as *Stones* and *Earth* : Others we see are endued with a Power of growing and extending themselves into special Forms and Sizes, as *Herbs* and *Trees*, which therefore have innate Motion, and may, in some Sense, be said to live or have Life, tho' in the lowest Degree. The next Class of Beings which present themselves, is in a Degree much superior to the foregoing, the Subjects of which are all endued with native Motion, Life in the most perfect Degree, and the Quality of Sensation ; that is, they are capable of *Seeing*, *Hearing*, *Tasting*, *Smelling*, and *Feeling* of all those Objects which come within the Reach of any of these *five Senses*. These Creatures are therefore called *Animals*, because they have the *Faculty of Life*, or are endowed with a *living Soul*. And of all Animals, *Man* is the Head and Ruler, on account of the far more perfect and excellent Faculties and Powers of his Mind, and especially that of Reason, by which he is distinguished from, and set above and over all the other Creation, as *King* and *Lord of all* ; and from hence he is called a *Rational Animal* ; not but that Reason, in various inferior

ferior Degrees, may be very justly allow'd to other Animals, who, on divers Occasions, give very convincing Proofs thereof.

BUT Man alone is capable of using his Reason to the noblest Purposes, to wit, the finding out the Being and Perfections of God, his Providence, and the Certainty of a future State after Death. For he can thus reason or argue : Every Thing that is, or doth exist, receives its Being either from itself, or some other Principle or Cause ; but nothing can be the Cause of itself, for that implies, that while it is not, it is capable of acting, or producing its own Being, which is evidently absurd ; therefore it must receive its Being from without itself, or from some other Cause different from itself ; and this first Cause we name *God*. And this Reasoning holds good of all the various Kinds of Beings yet observed, and even of Man himself, the chief of all : For nothing is more certain, than that the Power of giving or retaining Life, either in himself, or any other Creature, is not in Man, and consequently in no other Being but God himself.

The principal Argument proving the Being of a God.

BUT more particularly, the Being of a God is evident from the bare Consideration of the Properties of Matter : For Matter, 'tis plain, is of itself not capable of Motion or Rest, but is entirely listless and indifferent to both. But since all the animal Creation is endow'd with the Power to move or rest at pleasure, 'tis evident this Faculty is not from Matter itself, of which alone all Things consist ; therefore it must be from some other Principle or Cause, viz. from God.

The second Argument proving a God from voluntary Animal Motion.

AGAIN ; if that Motion and Rest in Animals, which is at their Will, be not of themselves, much less can that Motion which is perform'd in Animals, without their Will, (I may say also without their Knowledge) be first from themselves ; as the Motion of the Heart, Lungs, Blood, and other Fluids of the Body, which all move, during the Period of Animal Life, from one incessant Cause ; which, since it is not subject to the *Will* and *Power* of the Animal, must necessarily be from the general and the first Cause of all Things, God.

The third Argument, from involuntary Motion of Animals and other Things.

THIS is most certainly evident from the absolute and constant Motions of the heavenly Bodies, which ever keep turning round one common Center in Orbits nearly circular. For since these Bodies, I mean the Planets, are only huge Masses of mere Matter, they are not of

From the Motions of the heavenly Bodies, absolutely consider'd.

themselves capable of any Motion at all ; therefore they were first set in Motion by some first Mover, which is able to communicate that Power to Matter ; which is God only, as before proved.

*Also from
their constant
circular Mo-
tions.*

BUT this is still more obvious from the Manner of their Motions, which is circular ; for when Matter is put into Motion, it naturally proceeds in a direct or right Course ; that is, strait forwards, and not in a crooked or circular Course or Orb, as the Planets all do. Now the Air is not of that Thickness or Density in those Regions, as to stop the rapid Course of such great Bodies, and turn them from a direct to a curve or circular Motion ; but since it cannot proceed from the Air, it must be the Result of some Cause in those Bodies themselves, and that is Gravity, whereby they tend to their common Center of Motion from a right Course, yet so adjusted, with respect to the Force of the first or direct Motion, that together they form the circular Course ; and so neither fly off in Right Lines to infinite Distances, nor fall at once to the Center, and there lose all Motion. Now all this most admirable Power and Contrivance plainly points to that great Author, of whom *the heavens are the works of his fingers, and the moon and stars are of his ordaining.*

Psal. viii. 3.

*Arguments to
prove a God,
taken from
Final Causes.*

FROM the Consideration of *Final Causes* flow a thousand Arguments to prove the Existence of God. By *Final Causes*, I mean the Ends for which Things are evidently made, or intended to answer. Thus when we consider the Light was created to render Things visible, the Eye made on purpose to behold them ; when we consider the Air as a Means to convey Sounds and Scents, and the Ear and the Nose made and contrived on purpose to hear and smell the same : That in the Body there are Nerves which convey the Ideas received by those outward Organs of Sense to the Brain, which is the Seat of the Mind in Animals, to be there made use of for the Service, and at the Discretion of the Creature, in the several Occasions of Life : I say, when we consider such a wonderful Furniture of Means appointed so evidently to answer such a Series of proper and necessary Ends, it forces our Assent to the Doctrine of a Deity, who alone can be supposed capable of performing such wonderful Things.

*From a general
Survey of*

AGAIN ; from a due and nice Examination of all the larger Parts of the Creation, such as the Globe
of

of Earth on which we live, the great Variety of its Produce in Animals, Plants, and Minerals; the exact Contrivance of Animal Bodies to suit them for the Medium in which they live; the Man, and larger Beasts for Land, the Fishes for swimming in Water, the Fowls for flying in Air, the infinite Species of Creatures for the dark Abodes within the Body of the Earth; the rich and beautiful Variety of Herbs for the Pasturage of the Beasts, and Service of Man; with all the mineral Tribes in the Bowels of the Earth; the great and useful Variety of Mountains, Valleys, Rivers, Springs, &c. with which its Surface is diversified: As they all jointly serve the Uses and Necessities of Mankind, so they call most emphatically upon us to acknowledge and adore the divine Author for displaying and expending so much of his boundless Power and Providence in our Behalf. In like manner, the wondrous Orb of Air surrounding the Earth, serving to the Generation of Winds, Rain, Lustre of Daylight, &c. absolutely necessary to the State of Man and Beasts: Also the whole Frame and Structure of the Heavens; the Sun which rules by Day, and the Moon which rules the Night, with the Stars also, will unavoidably induce us to confess, that 'tis *G O D* who hath laid the foundations of the earth, and that the heavens are the work of his hands.

*the Earth and
the Heavens.*

14

ANOTHER, and not the least Argument for the Being of a God, is taken from the manifest Consent of all Nations with whom Reason and Morality hath appear'd in any Degree, and whose Barbarity hath not brought them to a level with mere Brutes. For whereas that which results from the Will, Humour, or mere Opinion of Men, is never the same among all People, as this Notion of God's Existence is; that is always mutable; this always and every where the same; all the World contend about Matters of Opinion, but all jointly agree to, and endeavour to establish this Point. With respect to Articles of Faith amongst *Jews, Mahometans, and Pagans*, as well as amongst *Christians*, scarce any one hath remained uncontested but this; this stands first and the same in all the Creeds of all Nations: And it hath been often seen, that tho' a very great Body of People may maintain an erroneous Doctrine, yet it never fails of being sooner or later detected and confuted to the Satisfaction of all Parties; a Fate which this sacred Doctrine only hath never yet been subject to. Much more

*The universal
Consent of all
Nations, an
Argument of
God's Exist-
ence.*

This universal Consent, whence.

Acts xvii. 24, 25, 26, &c.

Atheists, an Objection of no Force against the Doctrine of God's Existence.

The Atheist is a Fool.

may be said on this Head, but let this suffice here. Now from whence should this universal Persuasion concerning a Deity proceed? May we not answer, from the cogent sacred Oracles of Nature? Is not every Part of Nature vocal on this Occasion? and doth not the most contemptible Animal thunder in our Ears the tremendous Name of its Maker? It is impossible then, but that all should know, and universally confess, that it is *GOD who hath made the heavens and the earth, and all things therein; that he hath given to all life, breath, and all things; and that he hath made of one blood all nations of men to dwell on the face of the earth; and therefore that in him we live, move, and have our being.*

IT is an Objection of no Force, to say there have been several particular Persons who have denied this sacred Truth, the Being of a God: For (1.) it may be answer'd, that these Persons, take them all together in all Ages, have been exceeding few; and their impious Opinion therefore ought not to be thought of any Weight against the avowed Judgment and Consent of all Nations. (2.) It is possible this was not really the Sentiment of their Minds, and Language of their Conscience, tho' they might, for several Reasons, dare in Words to profess they believed no God; nothing being more common, in other Affairs of Religion, than for some Men to profess what they do not really and seriously believe in their Minds. (3.) Several who have been once so unhappy as to fall into this dreadful Supposition, have afterwards, upon Conviction, renounced it with Abhorrence, and wonder'd at their Stupidity. (4.) There are some People who make no Scruple of denying the Evidence of all the Senses of the Body, when they contradict their declared Tenets, and these by whole Nations together; no Wonder then that here and there one single Person should refuse to hearken to the internal Senses of the Mind: For all Nations believe that Bread is not Flesh; that Animals have Sense of Pain and Pleasure; that some Things are certain and true; as well as that they all believe a God; and yet they have all been denied, as well as this. (5.) If any have been really of this Opinion, they must necessarily have been devoid of Reason; for right Reason dictates the contrary: So that 'tis a just Remark of the Psalmist, *That 'tis the FOOL who hath said in his Heart, There is no God.* The Atheist then is a Fool; not so much for want of natural Sense,

as

as natural Reason : He is so in the same manner as are State Criminals ; viz. he is a Malecontent, a Traitor, a Rebel against his sovereign Prince and Maker.

FROM the foregoing Arguments, and many others, 'tis evidently prov'd *there is a God* ; and not only that, but we may from thence, and by the same Method of Reasoning, plainly discover and infer most of his Attributes and Perfections, which render him, to us his Creatures, an *awful and adorable Object*. As first, that God is a necessarily Self-existent and Eternal Being ; that he is an Unchangeable and Independent Being ; that he is but One ; that he is a Being most Simple, Uniform, Indivisible, and Incorruptible ; that he is Omnipotent, or All-powerful ; Omniscient, or infinite in Knowledge ; that he is a Pure Spirit, without Body, Parts, or Passions ; that he acts freely, as he pleases, without Necessity ; and, lastly, that he must necessarily be a Being of infinite Goodness, Mercy, Justice, and Truth, and all other moral Perfections ; such as become the supreme Ruler and Judge of the World.

The absolute and moral Perfections and Attributes of God discoverable by the Light of Nature.

THE Providence of God is most rationally inferr'd from his being proved the Author or Maker of the World, and all Things therein. For not only Man, as being endow'd with Understanding and Wisdom, but even Birds, Beasts, Insects, and all Creatures having Life and Sense, we constantly observe to have a special Care, Regard, and Tendernefs of their Offsprings ; and as it is a Part of natural Goodness, can we, on any account, suppose the same Carefulness and providential Regard to the Works of his Hands, wanting in that great Being whom we grant to be possess'd of infinite Goodness, Mercy, and Benevolence ? But this is directly proved from several Observations on the Works of Nature, as the Motions of the heavenly Bodies, contrary to the proper Laws of Nature, &c. to answer a general End. Wherefore we must conclude, that the same God who created all Things, and upholds and preserves them by his continual Concourse, does also, by his all-wise Providence, constantly govern and direct the Issues and Events of Things, takes care of this lower World, and of all, even the smallest Things therein ; disposes Things in a regular Order and Succession in every Age from the Beginning of the World to its final Period ; but inspects, with a more particular Regard, the moral Actions of Men.

The Providence of God, or his Government of the World, and all Things therein, plainly inferr'd from the Light of Nature.

A Future State of Rewards and Punishments proved. First, from Man's being an accountable Creature; and the Nature of Virtue and Vice.

A FUTURE State of Rewards and Punishments may be concluded also by the Strength and Light of Reason. For, (1.) The Nature of Man is such, that he acts freely, of choice, and unconstrained; and hath a Law imprinted in his Mind, which constantly directs him to do that, in every Case, which is fit and requisite from the Nature of Things. If he acts agreeable to this Law of right Reason, it is reputed *Virtue*; if contrary to it, it is called *Vice*: But Virtue merits Reward, and Vice Punishment, from the Nature thereof: Yet these Rewards and Punishments, 'tis plain, are not equally distributed in this Life; and since they are from God, to whom alone Man can be accountable for his moral Actions, and he is infinitely just, it follows there must be another and future State, in which Virtue and Vice must receive a perfect and equitable Distribution of Rewards and Punishments, proportionable to the several Degrees of Merit and Demerit. (2.) From the natural Inclination and Desire of Immortality, and an unavoidable Concern for what is to come hereafter, implanted in all Men, we may very probably conclude a Future State. (3.) The Dignity and Excellency of Man's Nature plainly shew him design'd and intended for a better and more worthy State of Life, than the best he can enjoy in this World. (4.) The natural Self-consciousness and Judgment which all Men secretly make of their own Actions in their own Minds, is by all allowed to be no small Proof of a future State of Account. (5.) It hath been the confess'd Judgment and Opinion of almost all the Heathen World, and has obtained as universally, both as to Time and Place, nearly as the Notion of a God itself; and therefore must be the Result of Reason, and deem'd a Certainty.

Secondly, from Man's natural Desire of Immortality.

Thirdly, from the Dignity of Man's Nature.

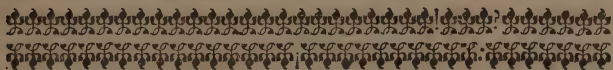
Fourthly, from Conscience.

Fifthly, from the Consent of Nations.

Piety the immediate Consequence of our Belief of God, his Providence, and a Future State.

HAVING establish'd in the Mind a firm and rational Belief of a Deity, his Providence and Government of the World, and a future State of Life, there must necessarily ensue the *Practice of Piety*, or an effectual Sense of the Obligations we are under to love, fear, serve, praise, pray to, and adore the sacred Name, and glorious Majesty of God. From hence also we are induced to trust in, to rely and depend upon him; to exercise Patience and Hope in Times of Affliction and Adversity, and to keep ourselves humble in Times even of the greatest Prosperity and Felicity; to have always a due and solemn Regard to the Rectitude of all our Actions; and

to be always in a proper Degree of Resignation both of ourselves and Fortunes, to the sovereign Dispose and Pleasure of God, who tho' he be the Most High, and has Dominion over all, yet he is righteous in all his Ways, and his tender Mercies are over all his Works.



Of ETHICS, or MORAL VIRTUES:



ETHICS is that *Science*, or *practical Discipline* which teacheth and explains the Way and Means of attaining *human Felicity*, or the greatest Happiness our Natures are capable of in this Life. This Science is also called

Definition of
ETHICS.

Morality, or *Moral Philosophy*.

IT is called *Morality*, because it directs the *Manners* of Men aright, and determines them to the Ways of Virtue, and from the deceitful and dangerous Paths of Vice.

Why call'd
Morality.

SINCE the chiefest Happiness of Life consists in the *Tranquillity* and *Pleasure* of the Mind, and this can proceed from nothing but the Consciousness of a Series or Life of Actions perform'd according to the Rule of Reason, Virtue, and Honesty; it follows, that in order to have a just Notion of this most useful Science, and treat of it in a proper Manner, we must first consider the Nature of *human Action*, and the *Law* by which it is regulated.

The Object of,
and Prerequisites to this
Science.

Human Action, or Agency, is that which ariseth from the proper and distinguishing Principles of Man, viz. the *Will* and *Understanding*. It must flow from the *Will*, that it may be *free*; and from the *Understanding*, that it may be *rational*; and being thus both *free* and *rational*, it must be *human*.

Human Actions what, and
how so.

Moral Action is such as renders the Agent or Doer good or bad, or worthy of Reward or Punishment.

Moral Action
what.

THAT an Action be good or bad, it is requir'd there be a certain Agreement or Disagreement of the Act and Object to which it is referr'd; that so Reason may determine whether the Action, with regard to the Object, may be aptly, meetly, and prudently exerted, or not. And if there be any Action wherein no such Regard can

How an Action
becomes
good or bad.

be

be had to the Object, that Action is said to be *indifferent*. An Action also may become *good* or *bad*, from the *End* or *Design* thereof, and several other *Circumstances* attending it, as *Time*, *Place*, *Person*, *Order*, *Age*, *Condition*, *Cause*, &c.

Actions either wholly good, or wholly evil, except indifferent ones.

IN order to denominate an Action *good*, it is requisite that the *Object*, *End*, and *Circumstances*, are together all *good*, at least none of them *bad*. Hence it follows, that no Action can be *partly good*, and *partly bad*; and that if either the *Object*, *End*, or *Circumstances* be singly *bad*, the Action will be *evil*, and that wholly so. Lastly, it follows that there is no *Participation* of *Good* and *Evil*; and that *Evil* is only the *Privation* of *Good*, or *Want* of due *Conformity* between the *Act* and its *Object*.

The same exemplified.

FOR Example, in doing *Alms*, the *Object* is a poor necessitous Person; the *End* is to abate or prevent *Misery* arising from *Want* of *Necessaries*; the *Circumstances* are the Person's *Merit*, *Quality*, the *Time*, *Place*, *Number*, &c. Now if from all these Things duly consider'd, Reason approves our giving an *Alms*, the Action is *good*, and then becomes our *Duty*: But if the *Object* be *not poor* and *need it*, or our *End* be the *Praise of Men*; or, lastly, if he be an *idle*, *worthless*, or *undeserving* Person; if a *Vagrant*, to whom the *Laws* have forbid the *Act*; or the *Number* of *Objects* so great, that in relieving them you must reduce yourself and *Family*: I say, in any one of those Cases, even so laudable an *Act* as *Almsgiving*, would, in the *Judgment* of Reason, be censur'd as an *Evil* or *Folly* that ought not to be done.

The Rule of human Actions is twofold; viz. (1) Law, (2) Conscience.

THE *Rule* of human Actions or *Manners*, is a Measure by which we make a *Judgment* of Things of the same Kind, from their *Convenience* therewith, or *Disadvantage* thereto. This is twofold, (1.) *External*, which is called the *LAW*; and, (2.) *Internal*, which we call the *practical Judgment* of the *intellectual Mind*, or *CONSCIENCE*.

Conscience defined.

Conscience is the *internal Judgment* or *Testimony* of Man's own *Mind*, which he makes or passes upon Actions done or to be done, concerning their *good* or *evil Quality*, and of his own *State* consequent thereupon. This *Testimony* of *Conscience* arises from the *Memory* of *Facts* committed or omitted; but the *Judgment* of *Conscience* proceeds from an *Application* of the *Law* or *Rule* to the *Facts* done, or to be done,

Con-

Conscience, in bearing *Testimony* and passing *Judgment*, *Conscience acts* proceeds in a kind of *sylogistical Method* of *Reasoning*, *sylogistically*. by Propositions and Consequences. For Example: If *Examples*. any Man love the World, the Love of the Father is not in him; but I love the World, therefore the Love of the Father is not in me. He who does any Thing forbid by the Law sinneth; but I have done somewhat forbidden by the Law, therefore I have sinned. In these Syllogisms the first Proposition contains the Rule which *Conscience* respecteth in bearing Judgment, and is called the *Light of Conscience*. The second contains the *Testimony of Conscience*, in regard of which it produceth itself a *Witness*. The Inference is the *Judgment of Conscience*.

The Light, Testimony, and Judgment of Conscience.

THE Rule by which *Conscience* judgeth of the Action, and censureth the Person, is the *Will of God*, known either by the *Light of Nature*, or from *divine Revelation*. The *Will of God* is plainly discoverable by the *Light of Nature*, as hath been shewn under the foregoing Title. This also is asserted by *St. Paul*, *Rom. ii. ver. 14, 15*. From whence 'tis plain, the whole Tenor of the *Moral Law* was imprinted on their Minds, and engraven in their Hearts; but, by *divine Revelation*, the dim *Light of Reason* receives a great Addition of Lustre and Brightness; and the Benefit of this *divine Revelation* we Christians only enjoy from the *sacred Scriptures*; for therein, in a more clear and evident Manner, is the *Rom. i. 17.* Righteousness of God (or his *Will*, or *Law of Moral Rectitude*) revealed from one Article of Faith to another.

The Rule of Conscience the Will of God.

Conscience, in regard to the Knowledge of this Rule of moral Action, is said to be *firm*, *well inform'd*, and *instructed*; or *weak*, *scrupulous*, *dubious*, and *erroneous*. An *erring Conscience* is that which with a firm Assent judgeth otherwise than the Thing is. This *Error of Conscience* ariseth either from a want of a clear and full Conception of its Rule, or Conclusions not well or rightly deduc'd from it; the Cause of which is a depraved Disposition, which either leads the Mind off from a *due Enquiry*, or perverts it from *judging rightly*. A *weak* and *scrupulous* *Conscience* proceeds from the Rule's not being in every Part so express, extensive, and certain, as to remove all Doubts and Scruples in lesser Matters and Circumstances, and thereby to render it able to determine what is fit to be, or not to be done.

The several Qualities of Conscience; as firm, weak, dubious, and erroneous.

Actions against Conscience, tho' erroneous, are sinful, and why.

HE that acteth against his *Conscience*, tho' *erroneous*, sinneth. For, (1.) He virtually acteth against the Will of God, or what he is firmly persuaded is such, which is all one; for whatever *Conscience* dictates to be done, it pronounceth it to be done for this Reason, Because the Will of God requires it. (2.) Because he acts counter to that Reason, which is the nearest and most immediate *Rule of Acting*. (3.) Because the Will acting contrary to the Dictates of an erroneous *Conscience*, is equally culpable as when it is not erroneous: Since 'tis the same thing, with respect to the Will, *to be* and *to appear*; and that we should be moved with an *apparent*, equally as with a *real* Good.

Weak Consciences ought to be indulg'd with Liberty and Freedom.

SINCE then the *Dictates of Conscience*, even though erroneous, are such *sacred* and *indispensable Ties*, 'tis evident that weak, scrupulous, and dubious *Consciences* ought to be indulg'd with the *greatest Liberty* and *Freedom*; for Force, Constraint, and Violence offer'd to the *Conscience* exercised with *Doubts* and *Scruples*, is a very bold Attempt, and highly affronting to God; since in this Case, whilst the *Conscience* is uncertain whether the Act be pleasing to God, or agreeable to the Rule of Reason, it is immediately driven upon it by coercive Power at all Adventures; and so cannot fail of producing much Disquietude and Uneasiness in such weak Minds, and thereby renders them *miserable*; contrary to the Institution of moral Government, which is to make Men happy.

A good Conscience defin'd.

Conscience, as it respects our *Conformity* or *Contrariety* to the *Laws of known Truth*, is said to be *Good* or *Evil*. A *Good Conscience* is that which sincerely judgeth that to be *Good* or *Evil*, which is such in the Judgment of God; and that, by virtue of such a Judgment, efficaciously excites us to the Performance of *good Actions*, and to Abstinence from *evil ones*. The Means of preserving a *Good Conscience*, are, (1.) Frequent reading and meditating in the Word of God. (2.) A frequent and impartial Examination of our own Ways and Actions. And (3.) the having always a reverential Fear of the All-wise and Heart-searching God before our Eyes, and in our Hearts. The Effects of a *Good Conscience* every *Good Man* knows.

Means of preserving it.

An Evil Conscience defin'd.

AN *Evil Conscience* is that which doth not hold or avouch that Truth which it may and ought to know and acknowledge; or else which acteth contrary to a known Truth,

Truth. The first is said to be a *Blind Conscience*, as it *Blind Con-*
accuses, when it should or ought to *excuse*; and the *science.*
 contrary. The latter is a downright *Wicked Consci-* *A Wicked*
ence, inasmuch as it acts in a sort of Defiance to God, *Conscience.*
 or in direct Contradiction to his Will. How danger-
 ous then is the Case of those, whose *Interests* prevail
 with them to reject *known Truths*, or act *contrary* to
 them!

THE *second Part* of the *Rule of Human Actions* is a *A Law defin'd*
LAW; this is the *external Part*. A *Law* is a *Precept*
 of a *supreme legitimate Power*, sufficiently promulg'd,
 concerning some legal Matter, and obliging the Subject,
 under *Penalty*, to the doing or not doing thereof. Under
 the Name of a *Precept*, the *Prohibition* of a Thing
 is included, which is a *Precept* of *not doing* a Thing.

LAW is either *Divine* or *Human*: A *Divine Law* is *A Divine*
 the *Mandate* of *God's own Majesty*; which we are not *Law, what.*
 only obliged to obey, but to esteem *perfectly good*; as deriv'd
 from a *Principle infinitely good and righteous*. The
Divine Law only has the *Prerogative* of binding the
 Conscience directly and immediately; because *God alone*
 can know the internal *Motions* of the Mind, and he
 only is able to punish the sinning Conscience.

AN *Human Law* is that of *Man*, who receives the *An Human*
 Power of giving *Laws* from God: This *Law* is muta- *Law, what.*
 ble and prudential, and therefore subject to Repeal and
 Amendment. An *Human Law* only binds the Conscience
 in a mediate Manner, and in Subservience to the
Divine Law. The *Body* only is the proper Subject of
Human Law, as the Conscience is of the *Divine Law*.

A *Divine Law* is either *Positive* or *Natural*. The *The Divine*
Positive Law is so call'd, because its Obligation ariseth *Law twofold,*
 only from the *Will* or *Precept* of the *Commander*. And *viz. Positive,*
 that is said to be a *Natural Law*, whose Obligation ariseth *and Natural.*
 from the *Nature* of the Thing enjoin'd. Therefore,
 Things of the *Natural Law* are prohibited, because
 they are *evil*; but those of the *Positive Law* are *evil*
 only because *prohibited*. The *Natural Law* is what of
 late is generally call'd the *Moral Fitness* of Things.

VIRTUE is an *Habit of Mind*, elective and acqui- *Virtue defin'd.*
 red, by which we are render'd apt, and constantly inclin'd
 to *prosecute* or *avoid*, to *act* or *not to act*, as *Reason*
 and *Prudence* direct or require.

VICE is an *Habit of Mind*, acquir'd, and by which *Vice defin'd.*
 we are render'd *negligent* of the *Dictates* of right *Reason*
 and

*How differs
from Sin.
Sin, or Moral
Evil defin'd.*

and *Prudence* in the Course of our Actions. *Vice* differs from Sin in this, that the former is an *evil Habit*, the latter an *evil Act*. *Sin, or moral Evil*, is of a negative Nature, being the Want or Privation of that Rectitude which ought to be in every rational Creature, which renders him conformable to the *Rule* or *Law* of Action.

*Virtue resolv-
ed into its
great Parts:
which are six.*

VIRTUE, by some, is said to consist of the *six following great Parts*, viz. *Prudence, Sincerity, Fortitude, Temperance, Justice, and Charity*. And under these general Heads, which are call'd *Cardinal Virtues*, (as the great *Hinges* on which all Morality turns) are contain'd all the lesser Branches and Subdivisions of Moral Duties or Virtues.

I. *Prudence,
wherein it
consists.*

I. *PRUDENCE* is an Habit, by which a Person rightly judgeth, both for himself and others, concerning those Things which are the Subjects of Action, in regard both of temporal and eternal Welfare; and so orders and governs the Actions of Life, that discerning the Good from the Evil, and the Useful from the Hurtful, he can direct Persons what to follow, and what to fly, and instruct them how to live well and happily. Or, more briefly, it is the Knowledge of those Things which are proper to be *desired* or *avoided*. The Offices then of *Prudence* are, (1.) To judge and discern between Things fit and not fit to be done on all Occasions. (2.) To counsel and advise others who stand in need thereof. (3.) To prescribe the Means for a safe and happy Conduct of Life.

*The Offices of
Prudence.*

II. *Sincerity
defin'd.*

II. *SINCERITY* is that Virtue of the Mind, by which the *Will* is *simply* and *wholly* determin'd to that which the Mind judgeth to be absolutely best, and merely and alone for that Reason, viz. because it is best. It determines the Will *simply*, without *Hypocrisy*, or Mixture of external Regards; as, to *Gain, Fame, &c.* And *wholly*, inasmuch as it prosecutes, *without Exception*, all Things which by the Mind are adjudg'd best and most fitting. Since then it is in itself a Thing really and simply *the best*, that we follow and obey God in all Things, 'tis necessary that this Virtue of *Sincerity* should move and excite us thereto; and that *merely* because he is a *proper Object*, and it is our reasonable and most advantageous Duty so to do. *Hypocrisy* is the *Vice* opposite to this *Virtue*.

III. *Fortitude
defin'd.*

III. *FORTITUDE* is a firm and steady Purpose and Resolution of Mind, to undertake good and necessary

fary Works and Actions, and a constant Perseverance in prosecuting the same, maugre all the Dangers and Difficulties that may arise and attend it. *Fortitude* therefore consists in these two principal Acts, viz. *to undertake*, and *to sustain*. The first is *Resolution*, the second *Constancy* and *Patience*. The first proceeds from a natural *Magnanimity*, or *Greatness of Mind*; the latter from a noble *Bravery*, *Courage*, and *Strength* of the Mind, rather than of the Body. *Magnanimity*, *Equanimity*, and *Patience*, are always the inseparable Concomitants of true *Fortitude*. The first secures us against the *Loss of Honour*; the second, against *adverse Fortune*; the last enables us to bear the *Pains* of the Body, and *Indispositions* of *Mind*.

Resolution.
Constancy.
Patience.
Magnanimity.
Equanimity.

IV. *TEMPERANCE* is that Virtue which sets proper Bounds and Limits to our natural Appetites and Desires, in Things which respect the present Life. The *Virtue of Temperance* is very extensive, and comprehends the following, viz.

IV. *Temperance defin'd.*

HONOUR, which is an Acknowledgment and proper Testification of that *Dignity*, *Worth*, and *Excellency* we observe or understand to be in another. *Temperance* here forbids *Flattery*, which is the giving a greater Measure of Honour and Merit than is due to a Person.

Honour.
Flattery.

MODESTY is that noble Virtue which temperates our Desire of *Honour*; and though it produces in us a moderate Conception of our own Merits and Worth, yet it generously permits to receive and acknowledge so much Honour and Esteem as we reasonably deserve. The same holds good with respect to the natural Concupiscence of the Body. The opposite Vices hereto are *Pride* and *Ambition*.

Modesty.

SOBRIETY is that excellent Virtue which temperates and restrains our natural Appetites, chiefly of *Meat* and *Drink*, to what is sufficient and necessary; and thereby prevents in us those two vicious and dishonourable Excesses, *Gluttony* and *Drunkenness*, too well known to need defining.

Sobriety.

CHASTITY is that most amiable and engaging Virtue, which instructs and disposes the Mind to a pure Life, undefiled, and free from all *impure Affections*, in Word, Gesture, or Action. But in common, *Chastity* is taken in a more restrain'd Sense, and signifies that Virtue, whereby we abstain from all *lustful Impurities* of that kind we call *Venerial*; and avoid all the Motives thereto,

Gluttony and Drunkenness.

Chastity defin'd.

thereto, in Thought and Deed. To this Virtue are opposed the following Vices, viz. (1.) *Adultery*, the unlawful Coveting or Cohabiting with another Man's Wife. (2.) *Fornication*, the illegal and carnal Cohabiting of a Man and Woman, both *unmarried*. (3.) *Concubinage*, which is a Man's keeping an unmarried Woman at his House, and cohabiting with her constantly as a Wife. (4.) *Polygamy*, or *Plurality* of Wives or Husbands, with one Man or Woman at one time. (5.) *Incest*, which is either Adultery, Fornication, or Marriage within the *prohibited Degrees* of Kindred. (6.) *Rape*, or *Ravishment*. All which are heinous and abominable Crimes in the Sight of God.

V. *JUSTICE* is that moral Virtue whereby we are inclin'd to perform every Thing that is *due* to our Neighbour, so far as *Right* and *Equity* require. *Justice* is concern'd to preserve the *Innocent* from *Harm* and *Injury*; to punish *Offenders* according to their Demerit, and to reward the *Virtuous* and *Deserving* with what is their proper Right and Due. The proper Offices of *Justice* then are, (1.) To hurt no Man in his Person, Character, Fortune, or in any other wise whatever. (2.) To render to every one his *just Due*, both in Words and Deeds. *Justice* is of two Kinds; (1.) *Commutative*; and (2.) *Distributive*. *Commutative Justice* consists in the *Equality* of the Thing receiv'd and return'd; and is the Virtue which renders to every one his own, in *external Goods*; and is principally occupied in Buying and Selling, which is a *Commutation* of Things of equal Value; and the common and standard Measure of such kind of Commerce between Men, is what we call

Money, what. Money.

Injustice, what. THE Vice opposite to this we call *Injustice*; which consisteth in *having more or less* in the *Permutation* of Goods, than the aforesaid *Equality* requires.

Distributive, what. *Distributive Justice* is that which consists in distributing *Rewards* and *Punishments*, according as every one hath deserv'd; Honours, Dignity, Benefits, and Commodities of all kinds, to whom they are due: As also Tributes, Taxes, Censures, and all kinds of Burthens and Penalties, where they are necessary and deserv'd. The first is call'd *Remunerative Justice*; and the latter *Corrective* or *Vindictive Justice*. *Corruption* or *Bribery*, which is the taking of Gifts to prevent or pervert the due Dispensations of *Justice*, are the *opposite Vices* hereto.

VERACITY

VERACITY is that Virtue whereby we are inclin'd to express Truth, by Words or Signs equivalent thereto, on all Occasions. Truth is the Agreement of Words and Expressions, either (1.) With the Thing itself; or (2.) With our Understanding and Judgment. Falsity is the Opposite of the first of these, as a Lye is to the latter. Simulation is our seeming to express the Truth by Facts and Signs, which yet in Reality do not express it. Fallacity is the Vice by which we deceive another, and impose on him a Falsity under the Pretence or Guise of Truth.

Veracity defin'd.
Truth, what.
Falsity and a Lye, what.
Simulation.
Fallacity.

FIDELITY is the Concord or Agreement of Facts with Promises and Covenants, express'd or understood. Faith is the Belief or Persuasion we have of this Fidelity in another Person, who is under a Promise to, or Contract with us; and the Act whereby we trust to the Fidelity of a Person in such a Case, is call'd Confidence. Note, This Virtue of Fidelity is also call'd (simply) Faith and Faithfulness. The opposite Vices hereto are, (1.) Infidelity and Unfaithfulness, when there is no Intention of performing what is promised. (2.) Perfidy, or Insincerity, when we do not sufficiently, or as much as in us lies, endeavour to perform our Promises and Contracts.

Fidelity defin'd
Faith, what.
Confidence.
Infidelity.
Perfidy.

EQUITY is a due Correction or Moderation of the rigorous Exaction of Right contain'd in the Law. For since Laws are general Things, and do not reach the particular State, Cases, and Circumstances of a Matter under all the Changes and Vicissitudes it is obnoxious to, 'tis necessary they should be duly temper'd by the mild and reasonable Rules of Equity; which always direct us to do to others as we would they should do to us. The Vice opposite hereto is call'd Iniquity.

Equity defin'd.
Iniquity.

VI. CHARITY is that benign and kind Disposition and Affection towards our Neighbour, arising from the Structure and Temper of our Nature, whereby we are inclin'd to procure all the Good we can to him, and to indemnify him from all the Evil we are able. This noble and generous Quality in us, the Latin Sages thought to express or comprehend the whole Nature of Man nearly, and therefore term'd it Humanity. And the Greeks, with a peculiar Propriety, call'd it Philanthropy, or the Love of Mankind. This most extensive Virtue comprehends divers particular ones of very great Consequence and Note, as follow.

Charity defin'd.
The same with Humanity and Philanthropy.

*Benevolence
defin'd.*

BENEVOLENCE is that Part of *Charity*, or *Love* to our Neighbour, whereby we are inclin'd to *wish his Good* from our Hearts, and to *rejoice* in his obtaining it; which latter Part is call'd *Congratulation*. To this Branch of *Charity* is oppos'd (1.) *Envy*, which is an Uneasiness of the Mind at another's Welfare and Happiness. (2.) *Malevolence*, or a *wishing Ill* to our Neighbour. (3.) *Hatred*, or that Affection which is *prone to the Evil* of our Neighbour, or whereby we abhor him. (4.) *Enmity*, which is an *inveterate Hatred* against our Brother, seeking an Occasion to hurt or do him Harm.

*Affability
defin'd.*

AFFABILITY is a Virtue whereby we *benignly receive*, and *freely converse* with those who make their Address to us.

Comity defin'd.

COMITY is a Virtue which renders us easy of Access, and makes us shew ourselves *sweet, courteous, and pleasant* in all our Actions to those we converse, or hold any Commerce withal. By this Virtue we express a Pleasure and Delight in conferring *Offices of Kindness* on our Brethren, and conciliate their *Love and Affection* to us thereby. The Vice opposite to *Comity* is *Morosity*, which consists in a *churlish, dogged, surly, and contemptuous Affection* of Mind towards our Fellow Creatures.

Morosity defin'd.

Mercy defin'd.

MERCY is that Affection of *Charity*, which creates in us Pain at the Miseries of others, and whereby we are inclin'd to succour and relieve them. It ariseth from *Sympathy*, or a *Fellow-feeling* of each other's Evils, naturally implanted in our Frame. *Mercy* is exercised chiefly in *Forgiveness*; *remitting the Rigour* of our Claims and *Dues*, where they can't easily be had; and in *remitting or moderating the Severity* of Penalties and Punishments; which latter is call'd *Clemency*. The contrary Vice to this merciful Disposition, is called *Cruelty*; a Quality therefore which one would think human Nature not capable of.

Sympathy.

Clemency.

Cruelty.

Beneficence.

BENEFICENCE is that *Office* of *Charity*, which moves us to procure and advance our Neighbour's *Welfare*, by doing him all the Good in our Power; let him be in Prosperity or Adversity, our Friend or Foe. And to this *heavenly Virtue* is oppos'd *Maleficence*, or the *devilish Spirit* of *doing Ill* to, or *persecuting* of our Brethren, who are our own Flesh and Blood.

Maleficence.

Mansuetude.

MANSUETUDE is that Virtue (near a-kin to *Clemency*) which teaches us prudently to moderate Anger, and ariseth from a merciful Mind. *Continued Mansuetude*

or MORAL VIRTUES.

Indulgence is call'd *Longanimity*, a Virtue which long restrains Anger ; and though we are often offended, it takes from our Minds the Desire of Revenge. To these *exalted Virtues* is oppos'd an *irrational Barbarity*, which renders us capable (strange to say !) of inflicting *Cruelties* and *Miseries*, or seeing it done without Remorse.

LIBERALITY is that Office of *Charity*, by which, from the Impressions of *Humanity* towards our poor and needy Neighbours, we are moved with a free and light Heart to supply them with *Necessaries* according to the Measure of our Abilities. Therefore this excellent Virtue is most of all conspicuous in *giving of Alms*. And this *Eleemosynary Disposition* is so pleasing to God, that he has assured us, that *he who giveth to the Poor, lendeth to himself* ; and that he will abundantly repay him. When the Subjects are *Strangers* or *Foreigners*, then this Virtue is call'd *Hospitality*. The opposite Vice hereto (could a reasonable Man think there was any ?) is a *stingy Parsimony*, or *Close-fistedness*, too often seen among the soul-less ungenerous *Wealthy*, who had rather their Money contract a *Rust*, than yield any kind Influence to the *Needy*.

FRIENDSHIP is that more *intense* and *refined* Degree of *Charity*, which we call *Amity*, and is the *mutual Return of Love* to those who *love us* ; or it is the *reciprocal Benevolence* and *mutual Affection*, with which we delightfully embrace and endear ourselves to one another. The *Ties of Friendship* are very great and solemn, and not to be dissolved but by an incorrigible Degeneracy to Vice and Wickedness in our unhappy Friend.





Of the CHRISTIAN RELIGION.

*Theology, or
Divinity de-
fin'd.*



HAT Science which treats of the *Being, Nature, and Attributes* of GOD, and teaches the divers *Articles of Faith* concerning him, together with the true *practical Method* of *worshipping* and *serving* of him, is call'd by the *Greeks, Theology*; and by the *Latins, Divinity*.

Christianity:
Judaism.
Mahometan-
ism.
Paganism.

THIS, with the *Christians*, is call'd *Christianity*; with the *Jews*, it is call'd *Judaism*; with the Followers of *Mahomet*, it is term'd *Mahometanism*; and the same among the *Heathens*, we call *Paganism*. These are the four great Systems of Divinity now in the World, and include all others. Each of which is also call'd by the general Name of *Religion*.

*Religion de-
fin'd.*

RELIGION is that general Habit of Reverence towards the *Divine Being*, whereby we are sensible of our Obligations to him, and are both enabled and inclin'd to worship and serve him, after that Manner we conceive to be most agreeable to his Will; that so we may procure his Favour and Blessing, and avoid his Anger and Displeasure. Religion is twofold, viz. *Natural* and *Reveal'd*.

*Natural Reli-
gion defined.*

NATURAL RELIGION is that which Men may know, and be obliged to, by the *Light of Nature* and common Principles of *right Reason*, improv'd by Consideration and Experience, without the *Assistance of Divine Revelation*. The Substance of *Natural Religion* is deliver'd under the two foregoing Titles.

*Reveal'd Re-
ligion defined.*

REVEAL'D RELIGION is what God has obliged us to perform by the Manifestation of his Will, upon the Consideration of temporal or future Rewards and Punishments. The two great Parts of which are *Faith* and *Practice*.

Revelation.

THE Manner in which God reveals his Mind, is generally by *Vision* or *Inspiration*; whatever God thus shews to Men, and they commit to Writing, these Writings

tings are said to be inspired, and to contain the *reveal'd Mind and Will of God*; and by the *Christians* these Writings are call'd, by way of *Excellency*, the *Scriptures*.

THE *Scriptures* contain two *Volumes* or *Canons* of *The Old Testament*. *Sacred Writings*; the first is proper to the *Jews*, and is call'd the *Old Testament*; the other is proper to the *Christians*, and is call'd the *New Testament*; and both together we call the *Holy Bible*, or (simply) the *Bible*. *The New Testament*. *The Christians* acknowledge the *whole Bible*, the *Jews* only the first Part, for the *Word of God*. *The Bible*.

THE *Old Testament* contains various particular Books, *The Divisions of the Books of the Old Testament into the Pentateuch*, which are divided under the following general Heads, *Prophets former and latter*. viz. (1.) The *Pentateuch*, which contains the five Books of *Moses*, viz. *Genesis*, *Exodus*, *Leviticus*, *Numbers*, and *Deuteronomy*. (2.) The *first Prophets*, containing *Joshua*, *Judges*, the two Books of *Samuel* and *Kings*. (3.) The *latter Prophets*: The greater, as *Isaiah*, *Jeremiah*, *Ezekiel*, *Daniel*: The lesser, call'd the twelve minor *Prophets*, viz. *Hosea*, *Joel*, *Amos*, *Obadiah*, *Jonah*, *Micah*, *Nahum*, *Habakkuk*, *Zephaniah*, *Haggai*, *Zechariah*, *Malachi*. (4.) The *Hagiography*, which contains the Books of *Job*, *Psalms*, *Proverbs*, *Ecclesiastes*, *Canticles*; to which some add the *Historical Books* of *Ruth*, *Ezra*, *Nehemiah*, *Esther*, with the *Lamentations* of *Jeremiah*, and the two Books of *Chronicles*, which complete the *Old Testament*. *The Hagiography*.

THE Books of the *New Testament* may be ranged under these following Classes: (1.) *Evangelical*; as the four *Gospels*, by *St. Matthew*, *Mark*, *Luke*, and *John*, who are therefore call'd *Evangelists*. *The Books of the New Testament*. *Evangelical*. (2.) *Historical*; as the *Acts* of the *Apostles*. *Historical*. (3.) *Epistolical*; as the *Epistles* of *St. Paul* to the *Romans*, *Corinthians II*. *Galatians*, *Ephesians*, *Philippians*, *Colossians*, *Thessalonians II*. *Timothy II*. *Titus*, *Philemon*; that to the *Hebrews*, one of *James*, two of *Peter*, three of *John*, and one of *Jude*. *Epistolical*. (4.) *Apocryphical*; as the Book of *Revelations*. *Apocryphical*. These complete the Canon of the *New Testament*.

THE Books of the *Old and New Testament* being adjudg'd *authentic*, that is, of *Divine Authority*, and universally receiv'd by the *Christian Church*, are therefore made the *Canon* or *Rule* of *Faith* and *Practise* in *Matters of Religion*; and so they are call'd *Canonical*, in opposition to those contain'd in the *Apocrypha*, whose *Authentic* *Scriptures Canonical and Apocryphal*.

Of the CHRISTIAN RELIGION.

thenticness is doubted, and therefore they are said to be *Apocryphal*. These are the Books of *Tobit*, *Judith*, *Wisdom*, *Ecclesiasticus*, *Baruch*, two Books of *Esdra*s, two of the *Machabees*, the Additions to *Ester* and *Daniel*, the *Prayer of Manasses*, the *Story of the three Children*, of *Susannah*, and of *Bel and the Dragon*. Though the Papists hold these Books to be *authentic* for the most part, and are therefore most of them receiv'd into the Canon of inspired Writings by the *Council of Trent*, &c.

Reasons to
prove they are
apocryphal.

Rom. iii. 2.

BUT that they are *apocryphal*, and not of equal Authority with the other, the *Protestants* prove by the following Reasons: (1.) Because they were wrote by none of the Prophets, but after *Malachi*, the last of the Prophets. (2.) Because they were not wrote in the *Hebrew Tongue*, as were all the other Books of the *Old Testament*, but in the *Greek*. (3.) Because the *Jews* never receiv'd them into their Canon of *authentic Scriptures*, yet to them were committed the Oracles of God, saith *St. Paul*. (4.) Because they are no where cited in the *New Testament* by *Christ* or his *Apostles*; and therefore not acknowledg'd by them. (5.) Because in them we find many Things inconsistent both with themselves and with the Canonical Books: Besides several Absurdities, Fables, &c. not worth minding.

The Reasons
proving the
Authority of
the Books of
the Old Testa-
ment.

THAT the Books of the *Old and New Testaments* are *authentic*, or of *divine Authority* and *Inspiration*, the following Arguments sufficiently prove, *viz.* (1.) The Law of *Moses* was deliver'd to him by God himself on *Mount Sinai*, attended with various Wonders and terrible Prodigies, in the open Sight of the whole Congregation of the *Israelites*; and therefore they could not be imposed on in that respect. (2.) The same contains the Predictions of various future Events; all which it also proves to have come to pass. (3.) The Books of the Prophets contain several Predictions, which were proved to happen accordingly, both by profane Historians, and the Writers of the *New Testament*. (4.) They say nothing but what is consistent with *Moses's Law*. (5.) They contain nothing repugnant to the *Christian Revelation* afterwards made. (6.) They speak with the greatest Reverence of God, always recommend Virtue, and inveigh against Vice. (7.) Their Authority is attested by the Writers of the *New Testament*. If then the Authority of the latter be good, that of the former must be so too.

BUT

BUT the Authority of the Books of the *New Testament* is abundantly prov'd from these evident Reasons: (1.) The Writers thereof were able to know and write the Truth; because what they writ was not of Things in *antient Times*, in distant or foreign Countries, or done in a Corner; but in their own Days, in their own Country, in the open View of Multitudes for a long Time; and of which they themselves were *Eye and Ear-Witnesses*. (2.) As they were not, nor could be imposed on themselves, so neither can they be supposed capable of imposing on others, for the following Reasons: (1.) They were simple, plain, illiterate *Plebeians, Tradesmen, and Mechanics* for the most part; and therefore could not pretend to Art and Craft enough to impose upon the whole World. (2.) If they were as cunning as you please, 'tis certain their Relation, if fictitious, is very ill contrived, and could never have succeeded as an *Imposture*. For (3.) there were enough living in and about the same Country and Regions to confute them to their Faces, had their Story been false, and not well-known Matter of Fact. (4.) But 'tis plain from many Passages, (as where they speak of their own Failings; their Meanness of Parentage, Person, and Profession; their Contention with each other, &c.) they could have no Intention of Fallacy, or Imposture; because it would then have been their Interest to have conceal'd such Particulars. (5.) The Religion which they promulge, prohibits *all Lying*, under the Penalty of eternal Condemnation; wherefore if *Impostors*, they were self-condemned. (6.) 'Tis evident, since the whole Tenour of the *New Testament* turns upon the Praise of *Virtue* and *Purity of Life*, and a manifest Abhorrence and Prohibition of all kind of Vice and Wickedness, that nothing can be more absurd, than to imagine it proceeded from the Devil, and not from God, from whom alone such an excellent Doctrine could be expected. (7.) There is no Possibility of seeing which way those Authors could make any Advantage of such an Imposture to themselves, or others; and to suppose they would take the Pains to invent and spread one for none at all, is absurd and silly. (8.) On the contrary, they suffer'd many Afflictions, and Death itself, in Defence of their Doctrine; which must either argue them to be true and sincere, or infatuated with the Love of what all the World besides ab-

The Authority of the Books of the New Testament proved by divers Arguments.

Of the CHRISTIAN RELIGION.

hor. (9.) The manifest End and Purpose of the *Christian Religion* is the Glory of God, and the present and future Happiness of Man ; which things are only worthy of God, and could therefore only come from him. (10.) The *New Testament* contains nothing contrary to Reason, though it improves our natural Reason very much ; and is therefore good, and worthy our Belief. (11.) The Account of our Saviour *Jesus Christ*, the Burthen of the *New Testament*, is in all respects conformable to the Predictions of the *Messiah* in the *Old Testament* ; and therefore the Story of him must be true. (12.) Lastly, several of the principal Facts related in the *New Testament*, are likewise mention'd in the profane Histories of those Times, and also by the *Jewish Historians* themselves ; by which Means the Truth of them is sufficiently confirmed.

*The Scriptures
are the Oracles
of God.*

THE sacred Writings then of the *Old* and *New Testament* are the Oracles of God, or his revealed Will to Mankind. They therefore contain every thing necessary for us to know concerning God and ourselves ; and to enable us with Certainty to conduct our moral and religious Life in such wise as shall render us acceptable to him whilst here, and to secure our future and eternal Happiness in the World to come. But to be more particular, the great Use of the Scriptures, or Revelation, is most remarkable under the following Heads, viz.

*The great Advantage of the
Scriptures, by
informing us of
the universal
State of the
natural World.*

First, By the Scriptures we learn that the Worlds were framed by the Word (or Power and Wisdom) of God ; that the Heavens and the Earth were of old, together with the Sun, the Moon, and the Stars, the Handy-work of that great God, whose Power and Wisdom are infinite and unsearchable. From thence we learn the *original Formation of Man*, and the Production of *Beasts, Fowls, Fishes, Trees, and Plants* ; which the Heathen in vain sought after. From thence only we have any *Memoirs of the innocent and lapsed State of Man*, and Manner thereof. From thence only we have an original and perfect Account of the universal Deluge, and the Cause and Manner thereof : Also how the World was again restor'd and re-peopled ; with the Difference between the *Ante-diluvian* and *Post-diluvian* World in many Respects. Again, from thence we know God's Government of the *natural World* : and, lastly, his Design to bring about its *final Catastrophe* by a general

a general *Conflagration*, or *Burning*: And its *Renovation* thereafter, or *new State* of the *Heavens* and the *Earth*. None of which *great Points* could be known from *natural Light*, by the wisest *Heathen Philosophers*.

Secondly, The *Scriptures* give us much clearer and more adequate *Notions* and *Sentiments* of *God*, and of his various *Attributes* and *Perfections*, than is discoverable by the mere *Light* of the most re-*stified Reason*. They also acquaint us much with the *metaphysical Nature* of *Spirits*, and *immaterial Beings*: As of *God* himself; of the various *Orders* of *Angels*, as *Seraphims*, *Cherubims*, &c. and the great *Defection* of some of them from their first *State* of celestial *Glory*, and their *Condemnation* to the perpetual *Horrors* of the *infernal State*. We farther learn from thence the *Intercourse* and *Ministry* of *Angels* and *good Spirits*, for the carrying on the *State* of the *moral World*, as well as the *natural*; and consequently of the more *immediate* and *special Providence* of *God*, with respect to *Mankind*.

Thirdly, The *Scripture* not only contains the most perfect *System* of *Morality*, but refines and illustrates every *moral Virtue*, and recommends and enforces the *Practice* thereof, with the additional *Motives* of temporal and eternal *Felicity*. If then the *Heathen* could advise to a *moral* and *virtuous Life*, only because *Virtue* seem'd its own *Reward*, with how much more *Force* and *Power* doth it stand recommended in *Scripture*, when, besides its own eligible *Qualities* and *Merits*, it has all the *Happiness* entail'd upon it, which the *Nature* of *Man* is capable of, or can desire? Add to this, that though *Vice* and *Wickedness*, in every *Degree*, be in itself directly opposite to the *moral Rectitude* of *Man's Nature*, and therefore such as a reasonable *Man* must naturally abhor and detest; yet the more effectually to deter *Man* from defiling his *Nature* therewith, the *Scriptures* prohibit every *Species* thereof with the *Penalty* of *God's Wrath* and *Vengeance*. Thus *Virtue* is encouraged, and *Vice* prohibited, with the *Sanctions* of *Rewards* and *Punishments*; and that from the *Authority*, not of an *Heathen Philosopher*, but the great *Author* of *Nature*, *God* himself.

Fourthly,

From them we learn the Repeal of the Jewish Law, and the Institution of Christianity.

Fourthly, From the *Scriptures* we learn the *Repeal* and *Abolition* of the *Jewish Law* of *Types*, *Ceremonies*, and *Carnal Ordinances*; and the *Institution* of a more perfect, rational, and noble *Scheme* of *Religion* and *Devotion*, by JESUS CHRIST, the promised MESSIAH and SAVIOUR of the World, the SON and ANOINTED of God, who delegated and sent him with full Power and Commission so to do. And this is the *greatest* and most *momentous Point of Revelation*.

The Scripture Account of Christ.

He is the Son of God.

His Incarnation.

Without Sin.

The true Messiah.

The Revealer of God's Will.

The great Antitype.

Taught the true Worship of God.

His Predictions.

Taught the Resurrection and future Judgment.

That he himself was appointed Judge.

THE DOCTRINE of the *Scriptures* concerning *Jesus Christ* is, (1.) That he is the *Son of God*, and was with God before the World was made. (2.) That in Time he took upon him a *Body of Flesh*, was born of a Virgin, and was, to all appearance, an *human Person*. (3.) That he grew to the State of *Manhood*, and liv'd a *perfectly pure* and *righteous Life*, absolutely free from *Sin*, or *culpable Actions*. (4.) That he declared himself to be the *predicted* or *promised Messiah*, or the *Anointed* of God, whom the *Jews* expected from their Writings. (5.) That he came to reveal the Mind of God his Father, and to enlighten and reform a dark and degenerate World. (6.) That he was the *great Antitype* design'd and prefigured by the *Jewish Law* of *Types* and *Ceremonies*, and that therefore in him their Law was completed and fulfilled; and so, the End being answer'd, was not to subsist any longer. (7.) That he went about doing Acts of Charity and Beneficence; that he endeavour'd to bring Persons off from their *Corruptions*, *Superstitions*, and *Idolatries*, to the *spiritual* and *true Worship* of God. (8.) That he foretold his own *Death*, and *Resurrection*, after three Days, from the *Grave*, and his *Ascension* into *Heaven*. (9.) That he was sent to declare to the World, that God has design'd, at the final Period of the World, to raise the *dead Bodies* of all, both good and bad, from their *Grave*, and to judge them for the Things done in this Life, and to award and assign every one his Doom, according to the Merit or Demerit of their Lives. (10.) That all who are alive at that great Day shall be changed; and that *He himself* was appointed by God his Father to be the awful Judge of *Quick* and *Dead*. (11.) That God had made it the indispen-

indispensable Duty to every Man to believe the Doctrines which he preached; and to confirm the Truth of all his *Pretensions*, he wrought divers *Miracles* in the open View of all Men, by the mighty Power of God his Father. (12.) That he made choice of *twelve select Men*, call'd his Disciples, and sent them forth to preach and promulge his Doctrine, and gave them Power to work Miracles also in Confirmation of it. (13.) That being about the thirtieth Year of his Age, he was baptized by his *Prodromus*, or Fore-runner, *John the Baptist*; and was in that Action recogniz'd the *Son of God*, by an *audible Voice* from Heaven; and consecrated by the Descent of the *Holy Spirit* in the Shape of a Dove. (14.) But notwithstanding the invincible Power of *heavenly Eloquence*, of *supernatural Works* and *Wonders*, of Purity and Perfection of Doctrine, the *Jews* would not believe him, nor receive him; but remain'd incorrigibly *obstinate* and *inimicable*. (15.) That by constantly reproving their *Incredulity*, *Superstition*, *Hypocrisy*, and other innumerable Vices, they conceiv'd an Hatred against him; and at last conspired his Death, which they soon after effected; he being hanged on the *Cross* as a *Malefactor* to his Prince and Country. (16.) That foreseeing his Death near at hand, he instituted the Sacrament of his Supper, (which we call the *Eucharist*) as a Memorial of his *Body broken*, and his *Blood shed* for the Remission of Sins. (17.) That the *third Day* after his Burial, he arose from the Grave, and conversed with his Disciples in the open Sight of all, as he had before predicted. (18.) That after his Resurrection, he called together his Disciples, and commanded them to go abroad into the World, and preach the Gospel of *Repentance*, and *Remission* of Sins, in his Name, to *all Persons* in *all Nations*, beginning at *Jerusalem*. (19.) That he enjoin'd them to baptize all whom they could prevail with to repent, and believe the Gospel, and that in the Name of the *Father*, *Son*, and *Holy Ghost*, and promised his Presence with them to the End of the World. (20.) That immediately after this he ascended up into Heaven in a most public Manner; that he there acteth the Part of an *Advocate* and *Intercessor* with God the Father for us *Sinners* here below, who believe in him,

He wrought Miracles.

Chuses his twelve Disciples.

His Baptism.

Recogniz'd the Son of God.

The Jews reject him.

They conspire, and put him to Death.

The Eucharist or Lord's-Supper instituted.

His Resurrection.

Preaching the Gospel instituted.

Baptism instituted.

His Ascension into Heaven.

Our Advocate and Intercessor.

and endeavour to conform our Lives to his Laws; and that it is in the Power of every *individual Person* so to do, if he please.

Christianity defined.

THESE Particulars concerning *Christ*, make the *Substance* or *principal Part* of *Christianity*; which is nothing else but our professing *Jesus Christ* to be the *true Messiah* and *Son of God*, the *Saviour of the World*, and who hath given us a true *Revelation* of the *Mind* and *Will of God*; which we are obliged to regard as our *sole Rule* in all the *Affairs of Religion*, both in *Faith* and *Practice*.

Christendom.

THE *Extent* of *Christianity* in the *World*, or all those several *Kingdoms* and *Countries* where the *Christian Religion* is *professed* and *embraced*, are, taken together, call'd *Christendom*; and this consisteth of many (some more *general*, some more *particular*, &c.) different *Religious Societies*, which are call'd *Churches*.

A Christian Church defined.

A *CHRISTIAN CHURCH* is a *Society* or *Congregation* of *Men* and *Women*, who are call'd out from the *vicious World* by the *Preaching* of the *Gospel*, and are *regulated* in all the *Parts* of their *ritual Discipline*, and *Articles of Faith*, by the *plain Rules* and *Prescriptions* of the *New Testament*; and whose *Lives* are *correspondent* to their *Holy Profession*.

Ministers of the Church extraordinary and ordinary. Extraordinary, viz. Apostles. Prophets.

THE *MINISTERS* of the *Christian Church*, in the *primitive State* thereof, were *Extraordinary* or *Ordinary*. The *Extraordinary* were chiefly three, *viz.* (1.) *Apostles*, who were *delegated* by *Christ* with *Power* and *Commission* to *preach the Gospel*, and to *work Miracles* in *Confirmation* thereof, among all *Nations*. (2.) *Prophets*, who were not such as simply *foretold Things*, but those to whom *God* was pleased to *reveal his more secret Counsels* and *Designs*, and who *related* and *preached the same* to *Men*. A *Christian Prophet* was *God's Nuncio*. (3.) *Evangelists*, such who were *Assistants* to the *Apostles* in *preaching the Gospel*; and were *indued* with many *extraordinary Gifts* of the *Holy Spirit*, as of *Languages*, *Interpretation*, &c. But since the *Establishment* of *Christianity* in the *World*, these *extraordinary Offices* have *ceased*.

Evangelists.

Ordinary Ministers. A Bishop.

THE *Ordinary Ministers* of the *Christian Church* are principally three. (1.) A *Bishop* (call'd in *Greek*, *Episcopos*) who had the *Over-sight* of the *Flock* or *Church*

Church of Christ ; to him pertain'd the *Preaching of the Word*, and due *Regulation* of the *Church* both in *Faith* and *Manners*. And this *Rule* and *Presidence* of the *Bishop* is call'd *Episcopacy*. (2.) *Presbyters*, or *Elders*, or *Priests* ; these were such as preach'd the *Word*, and administred the *Sacraments*, and perform'd all the other *sacred Functions* of the *Ministry* under the *Inspection* of the *Bishop*. But it is a *Controversy* whether the *Scripture* doth not intend the *same Person* or *Officer* by the Appellations *Bishop* and *Presbyter*. The *Power* of the *Presbyter* is call'd *Presbytery*. (3.) *Deacons* ; these were such as officiated in that Part of the *Christian Ministry* which related to the *Poor* ; and their *Business* was to take the *Collections of Money* made in the *Church*, and to *distribute* it to the *Necessities* of the *Poor*, and other *sacred Uses*. And their *Office*, properly speaking, is call'd the *Ministry*, or *Deaconship*. These *Officers* are all perpetual in the *Christian Church*.

His Govern-
ment.Episcopacy.
Presbyters,
Elders, PriestsTheir Power
Presbytery.
Deacons.

Deaconship.

ORTHODOXY (with *Christians*) is that *Faith*, *Belief*, or *Opinion* which is strictly *right* and *true*, and in every Part *comportant* with the *Scripture Rule* and *Declaration of Christian Doctrine*. The *contrary* to this, *viz.* *wrong* or *false Belief*, is call'd *Heterodoxy*.

Orthodoxy and
Heterodoxy,
what.

HERESY sometimes signifies a *Seet* or *Party* of *Christians*, distinguish'd from the *general Church*, by some particular and peculiar *Notions*, *Opinions*, or *Practices*. Sometimes it signifies an *Opinion* or *Sentiment* contrary to that which is *generally receiv'd* and esteem'd *Orthodox*. The *first Broacher* of such *Opinions*, &c. is call'd an *Heresiarch* ; and all those who embrace it, *Heretics*.

Heresy, what.

Heresiarch.

Heretics.

SCHISM is an *unnecessary Separation* of one or more *Members* from the *Body* of a *Church*. And the *Persons* thus *dividing*, or *causing* such a *Division*, are properly call'd *Schismatics*. But 'tis common for the *general Church* to term those who dissent or divide from it *Heretics* and *Schismatics* ; whether they really deserve it or not.

Schism, what.

Schismatics.

THE *general Division* of the *Christian Church* is into the *Greek* and *Roman*. The *Greek Church* is govern'd by four *Patriarchs*, *viz.* of *Alexandria*, of *Jerusalem*, of *Antioch*, and of *Constantinople* ; the latter of which calls himself the *Oecumenical Patriarch*, on

The great Di-
vision of the
Christian
Church, into
the Greek and
Roman.

The principal
Tenets of the
Greek Church,
from Sir
Paul Ricaut.

on account of his residing in the *Imperial City*, and his larger *Jurisdiction* than the rest. The *Greek Church* holds, (1.) That the *Holy Ghost* proceeds only from the *Father*, not from the *Son*, but by the *Son*. (2.) Yet they believe him to be *God*, and the *Spirit* of the *Son*. (3.) They reject the *Pope's Supremacy*. (4.) They attend *Prayer Morning and Evening*, on *Sundays* and *Holidays*. (5.) They enjoin the *Observation* of divers *Fasts* and *Feasts* in the *Church*. (6.) Also *Obedience* and *Honour* to their *Priests*. (7.) They enjoin *Confession* of *Sins* four times a *Year* to a *regular Priest*. (8.) They forbid the *Laity* to read the *Books* of *Heretics*. (9.) They enjoin *Prayer* for *Kings*, and all *Civil* and *Ecclesiastical Magistrates*. (10.) They pray for *Souls* departed in the *Christian Faith*. (11.) Also for the *Conversion* of *Schismatics* and *Heretics*. (12.) They forbid the *Laity* to invade the *Rights* and *Benefits* of the *Clergy*; and all kind of *Sacrilegious Acts*. (13.) They forbid marrying in *Lent*, or other *Fasts*. (14.) They prohibit the frequenting *Theatres*, or to imitate any *Gentile Customs*. (15.) They have four *Lents*; the first begins the 14th of *November*; the second, the great *Lent* before *Easter*; the third begins the *Week* after *Pentecost*; and the fourth on the first of *August*. (16.) At these *Times* they eat nothing that has *Blood* or *Oil*, nor *Milk-Meats*; but *Herbs* and *Shell-fish*. And they will scarce allow *Flesh-Broth* or an *Egg* at those times, even to a sick *Patient*, though his *Life* depend on it. (17.) Their *Priests* think it no *Sin* to be drunk on a *Festival-day*. (18.) They are as ridiculous in the *Histories* of their *Saints* as the *Popish Legendaries*. (19.) They baptize *Infants* at eight *Days* old, by *Dipping* them three times under *Water* in the *Name* of the *Trinity*. (20.) They use a kind of *Exorcism*, *Unction*, *Crossing*, *Sealing*, &c. in their *Baptism*. (21.) They have only one *Godfather*, or *Godmother*, according to the *Sex* of the *Child*. (22.) They use a particular *Chrism* or *Anointing* to confirm the *Person* baptiz'd with a deal of *Ceremony*. (23.) In the *Eucharist* they seal their *Bread* in the *Form* of a *Cross*; their *Bread* is leaven'd; they communicate in both *Kinds*, but it must be fasting; they receive the *Bread* and *Wine* together in a *Spoon* from the *Hand* of a *Priest*.

Priest. (24.) They acknowledge no *Transubstantiation*, yet pay a sort of Adoration to the *Sacrament*. (25.) Their *Excommunications* are made on very frivolous *Occasions*, though full of terrible *Curses*. (26.) They believe that departed Souls go either to *Heaven* or *Hell* immediately. (27.) They call *Marriage* one of their seven *Mysteries*, and absolutely prohibit the *Marrying* a fourth Time. (28.) They worship *painted Images*, but curse *graven* or *carved* ones. (29.) In the *Worship* of *Angels* and *Saints*, they differ little from the *Papists*. (30.) They reckon *seven Sacraments*, the same as the *Church of Rome*; but hold only *Baptism* and the *Eucharist* necessary to *Salvation*. (31.) They reject the *Apocrypha* from being *canonical*; yet hold some *Traditions* of equal *Authority* with the *Scripture*. (32.) They hold *Justification* from *Faith* and *Works* conjointly.

THE *Roman Church* holds, (1.) That *Peter* was the Prince of the *Apostles*, or had the *Primacy* among them. (2.) That he came to *Rome* A. C. 42. govern'd the *Church* there as *Supreme Bishop* twenty-four Years and a half; and was *crucified* with his Head downwards. (3.) That he was *Infallible*. (4.) That he receiv'd from *Christ* the *Keys* of *Heaven* and *Hell*; or Power to *anathematize*, and to *absolve* Sins. (5.) That they have had an *uninterrupted Succession* of *Bishops* from *Peter*; whom they call *Popes*. (6.) That therefore the *Pope* is the *supreme* or *universal Bishop* or Head of the *Christian Church*. (7.) And that likewise he is *infallible*. (8.) That he also inherits the Power of *Absolving* Persons from Sin, or binding them with *Anathema's* or *Curses*, as *Christ's Vicar*. (9.) That he is *supreme Head* of the *State* as well as *Church*; and can *inaugurate* and *depose Kings* and *Princes*, as well as *ordain* and *excommunicate Bishops* and *Priests*. (10.) That he can grant *Indulgences* and *Dispensations* for committing Sins, and perpetrating horrid Crimes. (11.) They believe that *Christ* did really descend into *Hell*, and releas'd the Souls of former *Saints* there detain'd. (12.) They hold a *Purgatory*, or a Place where Souls are purified by *Fire*, before they enter into perfect *Bliss*. (13.) They pretend also, that by saying *Mass* the *Priests* can deliver Souls from the *Fire of Purgatory*. (14.) They suppose the same

The Doctrines, Tenets and Superstitions of the Church of Rome.

same is effected also by Works of *Supererogation*, and the Prayers of *Angels*. (15.) They introduced the *Sign of the Cross*, *Chrisms*, *Sponsors*, *Sprinkling*, &c. in *Baptism*. (16.) They forbid the reading the sacred *Scriptures* by the *Laity*. (17.) They receive the *Apocrypha* into the Canon of the authentic *Scripture*. (18.) They hold divers *Traditions* by which they pretend to supply the *Defects* of *Holy Scripture*. (19.) They reckon seven Sacraments, *viz.* *Baptism*, *Confirmation*, the *Lord's-Supper*, *Penance*, *Extreme Unction*, *Orders*, and *Marriage*. (20.) In the *Eucharist*, they mix Water with the Wine, and refuse the Cup to the *Laity*; and use *unleaven'd Bread*. (21.) They hold *Transubstantiation*, or that the Bread and Wine, in the *Eucharist*, by the Consecration of the Priest, is changed into the *real Body* and *Blood of Christ*; which they first cause to be ador'd with many *Superstitions*, and then very reverently eat him. (22.) They worship the *Virgin Mary*, *Angels*, *Saints*, and *Images* of all Sorts, by *Prayer*, *Offerings*, &c. (23.) They enjoin *Celibacy*, or a *single State*, to their Priests. (24.) They are forbid also to read the Books of *Heretics*. (25.) They make a *Distinction* of mortal and venial Sins, to serve the Purposes of *Avarice* and *Ambition*. (26.) They enjoin Confession of Sins in the *Ear* of a Priest, which they call *auricular Confession*. (27.) They hold good Works *meritorious*, and sell Works of *Supererogation* very often to poor *Bigots* for the *Expiation* of their *Crimes*, very dearly. (28.) They enjoin the keeping the Fast of *Lent* with strict *Abstinence* from all *Flesh*; yet allow the eating *Fish*; so near a-kin is their *Philosophy* to their *Divinity*. (29.) They say Mass for the *Dead* as well as the *Living*, to make the greatest Use (or Gain) of *Godliness*. (29.) They say the Fire of *Purgatory* hath eight Degrees of *Heat*, and that of *Hell* but four. (30.) They make it a *damnable Sin* for any to doubt of their *Dictates*, though ever so *absurd* and *ridiculous*. (31.) They impose *Penance* for Sin, but you may often exchange the *Painful* for the *Pecuniary*; such is their *Clemency*! (32.) They profess *Poverty*; and have instituted an *Order of Mendicant Friars*; so much do they abhor *Greatness*, *Riches*, and *Honour*! (33.) They count all other *Religions heretical* and *damnable*. (34.) They

(34.) They pretend to have the Power of working *Miracles*. (35.) They *canonize* Persons for *Saints*; but *Money* more than *Holiness* is necessary for this. (36.) They profess *Chastity*, both *Men* and *Women*; as we have very notable *Instances* in the *Orders* of *Monks* and *Nuns*. (37.) They are very *jealous* in the *Cause* of *Religion*, as many have experienced by the *cruel, inhuman, and bloody Court* of *Inquisition*. (38.) The *Multitude* of *Ceremonies, Fasts, Festivals, Processions, Pilgrimages, Orders, Offices, and Innovations* of all kinds are too *tedious* to relate, and too *incredible* to believe: So that if you take *Popery* in its *native Dress* and *Complexion*, you must be pretty wise to know whether it is in the whole most like *Christianity, Judaism, Mahometanism, or Paganism*.

THESE amazing Corruptions in the *Roman Church* *Protestants* occasion'd the *Separation* of a large Body of People *whence* from her in the Days of King *Henry* the Eighth; who, from their *protesting* against *Popery* and *Romish Decrees*, were call'd *Protestants*: And who, since their general *Reformation*, have variously subdivided from each other, and according to their different *Opinions* and *Practices* have obtain'd *peculiar Appellations*: As *Lutherans, Calvinists*, who follow *Martin Luther*, *Lutherans*, and *John Calvin*, two of the first Reformers: *Arminians* and *Socinians*, the Followers of *James Arminius*, *Calvinists*, and of *Socinus*: The *Unitarians*, who allow but *one Person*, viz. of the *Father*, in the *Godhead*; and *Trinitarians*, who assert three Persons in the *Godhead*, as of the *Father, Son, and Holy Ghost*, according to *Athanasius's Creed*. But the most *substantial Divisions* of *Protestants* are the following, viz. *Arminians*, *Socinians*, *Unitarians*, *Trinitarians*.

THE CHURCH of ENGLAND, which *The Church of* is establish'd by the *Authority* of *Parliament*; and is *England* therefore the *National Church* in *England*, and most Parts of the *British King's Dominions*: The *Hierarchy* or *Government* whereof is *Archiepiscopal*; and for the *Doctrines* and *Practical Worship* therein, they are sufficiently known. All those who do not join with this establish'd Church, are call'd *Non-conformists* or *Dissenters*. As,

Presbyterians.

I. *PRESBYTERIANS*, who assert the Government of the Church is not by *Bishops*; but *Presbyters*, or ruling *Elders*; and that there is no Order in the Church of divine Institution superior to that of a *Presbyter*; who therefore hath Power to ordain Ministers, which is by *Fasting*, *Prayer*, and *Imposition of Hands*. They have three Courts. (1.) The Minister of each *Parish*, with his *Elders*, and the Congregation. (2.) A Court of *Presbytery*; consisting of a great Number of Ministers and Elders, associated for governing particular Churches. (3.) The highest Court is a *Synod*, which they hold may be *Provincial*, *National*, or *Oecumenical*; and allow of *Appeals* from the lesser to the greater. They baptize by *Sprinkling*, as does the Church of England, and their common Worship consists in *extempore Prayer*, *Preaching*, and *singing of Psalms*.

Independents.

II. *INDEPENDENTS*, so call'd, because they hold that every particular Congregation hath a compleat Power of *Jurisdiction* within itself, independent of any *Bishop*, *Synod*, or *Council*; and so discard all *Superiority* or *Subordination* of particular Churches to one another. In most other Respects they agree with the *Presbyterians*.

*Anabaptists
or Baptists.*

III. *ANABAPTISTS*; or (as they call themselves) *Baptists*; their main distinguishing Principle is *Baptism* by *Dipping* or *Plunging* the Person wholly under Water; and reject the Method of *Sprinkling*, used by others, as an *Innovation*, or *human Invention*, and altogether *unscriptural*. For the same Reason, they insist upon it that *adult* or *grown Persons*, not *Infants*, are the proper Subjects of *Baptism*; because, as the *Scripture* requires, they only are capable of *Repentance* and *Faith*, which are the *Prerequisites* thereto. For their *Opinion*, they alledge, (1.) The *Precept* and *Precedent* of Christ himself. (2.) And of the *Apostles*. (3.) The *Practise* of the *Primitive Church* for the first three Centuries. (4.) The proper *Etymology* of the Word *Baptize*, which they say will not admit *Sprinkling*. (5.) The several *Versions* of the *New Testament*, which all render the Word in Favour of *Dipping*, not of *Sprinkling*. (6.) From the
Design

Design of the Ordinance, they argue *Infants* can't be the *Subject*, because not capable of answering it. (7.) The utter *Silence* of the *Scripture* about *Pedobaptism*. (8.) The *Words* of the *Rubric* of the *Church of England* itself, which *absolutely* enjoin *Dipping*, but *Sprinkling* only on *Conditions*. (9.) The *Confessions* and *Concessions* of several *Bishops* and *learned Doctors* of the *Church* in favour of *Dipping* only the *Adult*. To all which, and many other *Arguments*, the *Pedobaptists* return various *Answers*; but whether *sufficient*, is not my *Business* here to say. This *Denomination* comes near the *Presbyterians* in their *Hierarchy*; and acknowledge *Hebrews* vi. 1, 2. for a kind of *Summary* of their *fundamental Doctrines* and *Principles*.

Quakers;

IV. *QUAKERS*, so call'd from *Quivering* and *Quaking*, and such like *frantic* and *ridiculous Emotions*, which they seem'd fond of *formerly*; but now are more sober, and disown the Name of *Quakers*. The *Tenets* of this People are always variable and changing; but their two main *Principles* are, (1.) The *Light within*, which they say is sufficient to guide every Man in Matters of *Religion*, and is more infallible than the *sacred Scriptures* themselves. (2.) They deny all *external Ceremonies* and *Services*, but *Preaching* and *Praying*; and even the two *Sacraments*, *Baptism* and the *Eucharist*. Their other *Modes* are too well known to need a *Description*. They first appear'd about the Year 1650.



OF JUDAISM; or the RELIGION and STATE of the JEWS.

Hebrews,
whence so
called.



THE People of whom we are now about to speak, were originally called *Hebrews*: *Abraham* was first called by this Name by the *Canaanites*, Gen. xiv. ver. 13. and from him it continued with all his Posterity. See Gen. xxxix. 14 and 17. Now *Abraham* was called an *Hebrew*, either from his being of the Family of *Heber*, Gen. xi. 14. who was in the seventh Generation before him, or else from a Word of the same Sound nearly, which signifies *beyond*, or *to pass over*; because he lived *beyond* the River *Euphrates* in *Mesopotamia*, and from thence he *pass'd* over the said River to come into the Land of *Canaan*.

Israelites,
whence.

AFTERWARDS, when *Jacob* the Grandson of *Abraham* receiv'd the Appellation of *Israel*, Gen. xxxv. ver. 10. the *Jews*, being the Descendants from him, were called *Israelites*; and the Land of *Canaan*, which they afterwards inhabited, was also called the *Land of Israel*.

Land of Israel
Jews, whence.

FROM *Judah* (which, in the Original, is *Jehudah*) the fourth Son of the Patriarch *Jacob*, and the Head of the principal of the Twelve Tribes, the *Israelites* came to be call'd *Jews*; and the Land of *Israel*, the Land of *Judah*; and simply *Judea*, in all succeeding Ages.

Land of Ju-
dea.

The Original
of the Jewish
State and Re-
ligion.

THE Story of the Servitude of the *Hebrews* under the *Egyptians*, their miraculous Deliverance from thence by *Moses* and *Aaron*, and their receiving the Model of their Civil, Moral, and Religious State, in their Return from thence to the Land of *Canaan*, are Particulars at large related in the *Pentateuch* of *Moses's*
own

own Hand-writing. The latter Article of which, concerning the *Religious* and *Civil State* of the *Jews*, after they were settled in their own Land, is what we shall here take a *general Survey* of.

THE *Laws* of the *Jews* were threefold, viz. (1.) *Jewish Laws* *Moral*; (2.) *Ceremonial* or *Ecclesiastical*; and (3.) *threefold*. *Civil* or *Political*. And all these were sanctioned either by *Divine* or *Human Authority*. And lastly, they were divided into the *Written Law*, and the *Oral Law*. The *Written Law* was that which God deliver'd to *Moses* from *Mount Sinai*; and which he immediately committed to *Writing*, for the Use of the *Jewish Church*, as it is contained in the Books of *Exodus* and *Leviticus*. The *Oral Law* is that which was (as the *Jews* pretend) deliver'd to *Moses* at the same time from *Mount Sinai*; which they say was the *Explication* of the *Written Law*; and which *Moses* deliver'd by Word of Mouth to *Joshua*, and he in the same manner to the *Seventy Elders*, they to the *Prophets*, these to the *Great-Synagogue*, and from thence it was delivered successively to the *wisest Rabbi's*; till at last it was collected together, and thrown into *Writing*, lest it should be lost in the extreme *Dispersion* of the *Jews*, and which they call the *Talmud*. The *Jews* prefer the *Oral Law*, or the *Talmud*, to the *Written Law* of *Moses*. They give these Reasons: (1.) The *Oral Law* is the *Foundation* of the *Mosaical Law*; this being deliver'd in one *Day*, that required thirty-nine. (2.) It is a large *Commentary* on the *Mosaical Law*, and explains (say they) its dark and doubtful *Passages*. (3.) They say the *Law* of *Moses* is very *scanty* and *defective*, to which the *Talmud* is a very ample *Supplement*; and such other *Stuff*. Wherefore, say they, nothing is *superior* to the *most holy Talmud*. In this respect then, you see how much the *Papists* and they are alike.

THE whole Body therefore of the *Jewish Laws* are contain'd in the Books of the *Old Testament*, and the *Talmud*; in both which we consider *two Parts*, viz. the *Text*, and the *Explanation*. The *Text* of the *Old Testament*, by the *Jews* in their own *Tongue*, is called the *Torah*, especially *Moses's Law*. And the *Explanation* thereof, by way of *Paraphrase*, is called the *Targum*; which signifies, in *Chaldee*, the same

Jewish Laws
threefold.

Written and
Oral Law.
Written Law,
what.

Oral Law,
what.

The Talmud
preferred by
the Jews to
the Law of
Moses, and
why.

The Torah,
what.
The Targum,
what.

Thing as *Paraphrase* ; they being wrote in the *Chaldean Tongue* long after their *Captivity*. Of these *Targums* there are two of principal Notice, *viz.* the *Targum* of *Onkelos*, on the *Pentateuch* ; and the *Targum* of *Jonathan*, on all the *Prophets*. There are other *Targums*, but of less Note and Worth. 'Tis uncertain who the famous *Targumist Onkelos* was, and when he lived ; but for the other *Targumist Jonathan*, 'tis certain he was the Son of one *Uziel*, and the chief Scholar of the celebrated *Jewish Doctor Hillel*, before our *Saviour's Birth*.

The *Talmud*
consists of two
Parts, *viz.*
the *Mischnah*,

CONCERNING the other Part of the *Jewish Pandects*, or Body of Laws, the *Talmud* ; it consisteth of two Parts also ; *viz.* the *Text*, which they call the *Mischnah*, (i. e. the *secondary Law*) which contains all the *Oral Traditions* of the *Fathers* and *Rabbi's*, from *Moses* to the Time of *Rabbi Judah the Holy*, who collected and compacted them all into this Part of the *Talmud*, about 150 Years after *Christ*. The other Part of the *Talmud* is call'd *Gemara*, (i. e. the *Supplement*) which contains *Variety* of *Commentaries* on the *Mischnah*, or first Part, with the *Discussion* and *Decision* of various *Opinions*. This was added about *A. C.* 500.

And *Gemara*.

The six great
Parts of the
Talmud, *viz.*
Zeraim.
Moed.
Nashim.
Nazikin.

THE whole *Talmud* is divided into six general Parts, as follow : (1.) *Zeraim*, Seeds. This treats of the various Kinds of *Seeds*, *Herbs*, *Trees*, *Fruits*, &c. of the Earth. (2.) *Moed*, which treats of divers *Festivals* and *Solemnities*. (3.) *Nashim*, of *Women*. This treats of *Women*, of *marrying* and *divorcing Wives*, and all other *Incidents* proper to them. (4.) *Nazikin*, of *Damages*. This treats concerning *Damages*, *Nuisances*, &c. with their *Penalties*, and *Compensation*. (5.) *Kodaschim*, of *Holinesses* ; this treats of various Kinds of *Sacrifices*, and other sacred Things. (6.) *Tahoroth*, of *Purifications* ; which treats of all kinds of *Purity*, and *Uncleanness* and *Pollutions* of *Vessels*, and other Things.

Kodaschim.

Tahoroth.

The *Peruschim*,
or *Jewish*
Commentaries
on the *Old*
Testament.

BESIDES the *Targums*, or *Chaldee Paraphrases* on the Books of the *Old Testament*, there are various *Commentaries* wrote by the *Rabbi's*, the chief of which are these three, *viz.* (1.) The *Commentaries* of *Rabbi Salomon Jarchi*, which are short and difficult. (2.) Those of *Rabbi Aben Ezra*, which are generally larger and

and easier. (3.) Lastly, The *Commentaries* of Rabbi David Kimchi; these are very large, and very easy to be read and understood. These *Peruschim*, or *Rabbinical Commentaries*, are very useful and necessary to be understood by *Christian Divines*.

HAVING taken a View of the Books containing the *Jewish Laws*, we shall next take notice of the Laws themselves. The *First Sort* of which is the *Moral Law*, which they receiv'd a *Summary* of from God himself, in *Ten general Precepts*, and wrote with God's own Hand on two Tables of Stone, which he deliver'd to *Moses* on *Mount Sinai*, for the Use of the *Jewish Church*. These *Ten Commandments* are call'd the *Decalogue*, and may be seen in *Exod. xx.* and *Deut. v.* To these general Heads of *Morality* contain'd in the *Decalogue*, there were added divers particular *Rules* and *Precepts* suited to the Cases of *private Life*; all which *Moses* wrote in a Book, and then read it to the People.

To these *Mosaical Precepts* of *Morality*, which are of *Divine Authority*, may be added the *Seven Precepts* of *Noah*, which are merely *Traditional*; *Noah* having (as the *Jewish Doctors* pretend) receiv'd the first *Six* by *Tradition* from *Adam*, and added the seventh himself, from whom the *Rabbinical Doctors* say they have them also by *Tradition*: They are as follow. (1.) To renounce all *Idolatry*. (2.) To bless the Name of God. (3.) To abstain from *shedding Blood*, or *Murder*. (4.) Not to uncover one's *Nakedness*, by which *Fornication*, &c. is forbid. (5.) Not to steal, or commit *Rapine*. (6.) *Judgments* or *Punishments* of *Malefactors*. (7.) Not to eat any Part of a Beast taken from it alive. These *traditional Precepts* of *Noah* were to be acknowledged and observed by those whom the *Jews* call'd the *Proselytes* of the *Gate*.

THE *Ceremonial Law* of the *Jews* was that which appointed the *Rites*, *Ceremonies*, and *Ordinances*, which made up the *Jewish Service* and *Worship*. This consisted principally of the following Parts. (1.) *Sacrifices* and *Offerings*. (2.) *Libations*. (3.) *Prayers*. (4.) *Preaching*. (5.) *Confession*.

THE *Sacrifices* were made only of five Sorts of *Creatures*, viz. *Oxen*, *Lambs*, *Goats*, *Turtle-Doves*, and

The moral Law of the Ten Commandments, call'd the Decalogue.

The seven Precepts of Noah, by Tradition.

What they be.

By whom to be observed.

The Ceremonial Law.

The Jewish Worship.

The Sacrifices, of what made.

*Of how many
sorts.*

and young Pigeons. They were of four Sorts. (1.) The *Holocaust*, or *whole Burnt-Offering*, every Part whereof was consumed by Fire, *Levit. i.* (2.) The *Meat-Offering*, consisting of fine Flour mingled with Oil, &c. See *Levit. ii.* (3.) The *Peace-Offering*, the Manner of which see in *Levit. iii.* (4.) The *Sin-Offering*, of which you have an Account in *Levit. iv.* and following Chapters.

*Libations, or
Drink-Offer-
ings.*

THE *Libations* were those *Drink-Offerings* which were added to the *Sacrifices*. These were made of various Quantities of strong *Wine*, which was pour'd forth to the Lord in the *Holy Place* of the *Tabernacle*; concerning which you may read *Numbers xxviii.* and *xxix.*

Their Prayers.

THEIR Prayers made another Part of their *Service*; these at first were very few, but afterwards increas'd to a very large Bulk. Their *Liturgies* and *Rubrics* are so long, tedious, and perplex'd, that in this Respect, as well as several others, they vie with, if not exceed, the superstitious *Roman-Catholics*. The most solemn Part of their Prayers are those which they call *Shemoneh Eshreh*, or the *eighteen Prayers*, which they say were compos'd by *Ezra* and the *great Synagogue*; to which another Prayer was afterwards added.

*Their reading
and expound-
ing the Scrip-
tures.*

*Kiriath
Shema.*

THE reading and expounding the *Scriptures* made the most considerable Part of the Service of the latter *Jews*. The reading the *Scriptures* is of three Sorts. (1.) The *Kiriath Shema*, or *reading the Shema*; it consists in reading three Portions of the *Scripture*, viz. from *Deut. vi. ver. 4* to *10.* from *Deut. xi. ver. 13* to *22.* and from *Numb. xv. ver. 37* to the End of the Chapter. This reading the *Shema* is accompanied with several Prayers and Benedictions. (2.) The reading the *Law*; which in the *Hebrew Bibles* is divided into *54 Sections*, one of which they read on each *Sabbath*, and so the whole *Law* was read once a Year. (3.) The reading of the *Prophets*. In the Time of Persecution under *Antiochus Epiphanes* the *Jews* were forbid to read the *Law*; instead of which they substituted *54 Sections* out of the *Prophets*, and read them to the Times of the *Maccabees*, who restored the reading of the *Law*, and then both were read; the one for the *first*, the other for the *second Lesson*. See

*Reading the
Law.*

*Reading the
Prophets.*

Acts

Acts xiii. 15. and 27. After reading these Lessons, they preach'd to the People.

THE next thing respecting the *Jewish Worship* is their *Festivals*; of which they have several. As (1.) The *Sabbath-Day*, which they dedicated wholly to *Rest*, and *Religious Purposes*. (2.) The *Passover*; for the Time and Manner of celebrating it, see its Institution in *Exod.* xii. This was call'd the *Feast of unleavened Bread*. (3.) The *Feast of Pentecost*; so call'd because it was the *Fiftieth Day* (or *Seven Weeks*) after the second of the *Passover*; its Institution is in *Levit.* xxiii. 17, &c.* The *Feasts of the Passover* and *Pentecost* answer to our *Easter* and *Whitsuntide*. (4.) The *Feast of Tabernacles*; during which the People lived in *Booths*, which was seven Days. See *Levit.* xxiii. 34. and *Numb.* xxix. 12. (5.) The *Feast of Trumpets*; this began the first Day of the Month *Tisri*, and was proclaim'd by *Blowing of Trumpets*. (6.) The *Feast of Expiation*, call'd the Day of *Atonement*; and this was the Day on which the Priests went into the *Sanctuary*. See *Levit.* xxiii. 27, &c. (7.) The *Feast of New-Moons*; this was every first Day of their Months. See *Numb.* xxviii. 11. (8.) The *Sabbatical Year*, or *Year of Rest*, wherein they neither sow'd nor reap'd; this was every seventh Year: *Levit.* xxv. 2, 3, 4. (9.) The *Year of Jubilee*; which was every *fiftieth Year*: This was a *Sabbath of annual Sabbaths*; this was the last Feast God commanded the *Jews*, and the most solemn; for then all *Estates alienated* return'd to those who had sold them, and *Slaves recover'd* their *Liberty*. (10.) *Feast of Purim*, or *Lots*: See its Original in *Esther* ix. 21. In this Feast the History of *Esther* was read, and at every Mention of *Haman*, the *Jews* smote upon their Benches and Seats, as if they would knock him on the Head. (11.) The *Feast of Dedication*; of this we read *John* x. 22, &c. This was an anniversary or yearly Solemnity appointed by *Judas Maccabæus* in Commemoration of the *Jews Deliverance* from the *Tyranny of Antiochus*; concerning which see *1 Mac-cabees* iv. All *Festivals* began and ended on the Evening of the Day.

THE Places consecrated to *Divine Service* under the *Jewish Dispensation*, were (1.) The *Tabernacle*, which

Preaching.

The Jewish

Festivals.

The Sabbath.

The Passover.

Of Pentecost.

Of Tabernacles.

Of Trumpets.

Of Expiation.

Of New Moons.

The Sabbatical year.

Of Jubilee.

Of Purim, or Lots.

Of Dedication

Places of Divine Worship.

- The Tabernacle* which was moveable, and but for a Time, viz. of
The Temple. their *sojourning State*. (2.) The *Temple* built by *Solo-*
Holy of Holies. mon. In both these there were three remarkable
Parts, viz. 1. The *Sanctum Sanctorum*, or *Holy of*
Holies, the most holy Place; into which only the
High-Priest might enter, and that but once a Year;
which was on the *Feast of Expiation*, to make an
Atonement for the People. 2. The *Sanctuary*, or
that Part before the *Holy of Holies*. 3. The *Court*
before the *Tabernacle* and *Temple*. (3.) *Synagogues*;
these, with respect to the *Temple*, were as *Parish-*
Churches with us in regard of the *Cathedral Churches*.
The Rule was, to have a *Synagogue* in every Place
where there was ten *Batelnim*, or Persons of full Age,
and free Conditions, always ready to attend the Ser-
vice of it. (4.) The *Proseuchæ*, *Oratories*, or *Houses*
of *Prayer*. These were not cover'd, but open above,
like *Courts*; and in which every one pray'd apart for
himself, as in the *Courts* of the *Temple*. They were
built chiefly on high Places, and are the same, prob-
ably, which in the *Old Testament* are call'd *High-*
Places.
- Religious* As to the *religious Orders* in the *Jewish Ministry*,
Orders. the principal was the *Sacerdotal Order*, or that of the
Priesthood. *Priesthood*. In this Order there was one *Chief* or
Head, call'd the *High-Priest*. Of these *Aaron* was
the First, and the *High-Priesthood* was peculiar, or
tied, to his First-Born; and that thro' all Ages of the
Jewish Oeconomy. (2.) The *common Priesthood*, to
which the Posterity of *Levi* was particularly consecra-
ted. The peculiar Offices of the *Aaronical* and *Leviti-*
cal Priesthood are largely set down in the Books of
Moses; together with the Manner of the Consecra-
tion and Ordination proper to each. (3.) The *Nethi-*
nims, who were a sort of an Order of *Deacons*; they
were Hewers of Wood and Drawers of Water for
the House of God. These were neither *Levites*, nor
even *Israelites*, but tributary *Gibeonites*. See *Josh. ix.*
23. and *Ezra ii. 43.* These three Orders were pro-
per to the *Cathedral* or *Temple Service*: But besides
these there were (4.) *Elders* or *Rulers* of the *Syna-*
gogues; and next to these (perchance one of them)
was (5.) The *Minister* of the *Synagogue*, whom they
call'd *Sheliach Zibbor*, i. e. the *Messenger* or *Angel* of
the

the Church: In reference to whom, the Bishops of the Seven Churches of *Asia* are so call'd, *Rev. i. 20.* Under these were (6.) The *Chazanim* or *Overseers* of the *Synagogue*, who had the Charge of all Things in it, and kept the Books of the Law, Prophets, Liturgies, &c. with the Utensils belonging to the *Synagogue Service*: But particularly the *Chazan* stood by, overlook'd, directed, and corrected those who read the *Lessons* out of the *Law* and the *Prophets*. See *Luke vi. 20.* (7.) The next Officer was the *Interpreter*, whose Business it was to render the Lesson read in *Hebrew* into the *Chaldee*, which Language the common People, after the Captivity, could only understand; their own Tongue, the *Hebrew*, being as unknown to them, as the *Latin* to us; and was learn'd in the same manner in Schools.

Angel of the Church.
The Chazanim or Overseers.

The Interpreter.

AMONGST the *Jews* we read of divers religious *Sects*, and other Distinctions of Men. As (1.) the *Samaritans*; who were a kind of mongrel *Heathens* at first, who worshipped the God of *Israel* in Conjunction with *Pagan Deities*. Afterwards they rejected *Idolatry*, and conform'd to the *Mosaic Law*; besides which they reject all the other Books of the *Old Testament*, and all *Traditions*, together with the *Temple Worship* at *Jerusalem*; asserting *Mount Gerizim* was the Place where God was to be worshipped. (2.) The *Sadducees*; these at first only rejected the *Traditions*, and stuck to the *written Law*, but afterwards they imbib'd impious Doctrines, denying the *Resurrection* of the *Dead*, the Being of *Angels* and *Spirits*, and were in all Respects a *Sect* of *Epicurean Deists*. (3.) The *Karrites*; they differ from the *Jews* in common, by rejecting their *oral Traditions* and all *Superstitions*, and adhering strictly to the *written Word*. (4.) The *Pharisees*; this was the greatest *Sect* among the *Jews*, or rather the *general Church*, in regard of which the other were *Dissenters*. These receiv'd not only the *written Canon of Scripture*, but held all manner of *Traditions*, and invented many *Superstitions*, affecting to appear very *ceremonious* and *religious*, and that to a most obvious and shameful Degree of *Hypocrisy*. (5.) The *Scribes*; these were not a religious *Sect*, but a *Profession* of Men following *Literature*, and were what we call *Doctors* or *Teachers*; they were

The various Sects and Societies amongst the Jews.
Samaritans.

Sadducees.

Karrites.

Pharisees.

Scribes.

of

Nazarites.
Rechabites.
Essens.

Gaulonites.

Herodians.

*Profelytes of
 the Covenant.*

Of the Gate.

Publicans.

*Masorites,
 their Office.*

of two Sorts, viz. such as taught the Law and the Prophets in the *Synagogues* and *Schools*; and such as taught the *Civil Law*, and were therefore call'd *Lawyers*. (6.) The *Nazarites*, and (7.) The *Rechabites*; of the first see *Numbers* vi. and for the latter, *Jeremiah* xxxv. (8.) The *Essens*, a Sect more rigorous and *enthusiastical* than the *Pharisees*. They held *absolute Predestination*, and deny'd all *Free-Will* and *Free-Agency* in Man. They held a *Future State*, but denied the *Resurrection* of the *Dead*, like our *Quakers*. They were a plain, honest, retir'd, and friendly *Society*; and 'tis said they denied themselves the Use of Women, the Pleasures of *Money* and *Honours*, and all other carnal and worldly *Delights*. (9.) The *Gaulonites*, who sprang from one *Judas Gaulonites*, or otherwise call'd *Judas of Galilee*, *Acts* v. 35. they were therefore also call'd *Galileans*; and it was their Blood that *Pilate* mix'd with their *Sacrifices*, *Luke* xiii. 1. (10.) *Herodians*; who (as 'tis said) were so call'd, because they took *Herod the Great* to be the *Messiah*, and honour'd him with superstitious *Solemnities* annually on his *Birth-Day*; though others give a different Account of them (11.) *Profelytes*; these were Converts to *Judaism* from among the *Heathens*; they were of two Sorts, viz. First, *Profelytes* of the *Covenant*, who submitted to *Circumcision*, and all the *Mosaical Rites* and *Ordinances*. Second, *Profelytes* of the *Gate*, who were only tied to the Observance of the *seven Precepts* of *Noah*, before-mentioned: This Sort was call'd the *Stranger within thy Gates*, *Deut.* xiv. 21. (12.) *Publicans*; these were no Sect, but *Civil Officers*, whose Business was to collect the *Taxes* and *Tributes* imposed by the *Roman Emperors* on such *Provinces* as were under their *Jurisdiction*; and were odious to the *Jews*, both because they were *Strangers*, and because they exercised great *Injustice* and *Oppression* in executing their Office among the *Jews*, who supposed they had no Right to pay *Tribute* at all. (13.) Besides these Sects and Officers there was amongst the *Jews* a Set of Men call'd *Masorites*, whose Employ was in numbering all the *Verses*, *Words*, and *Letters* in each Book throughout the Bible. They wrote marginal Notes on grammatical Matters; and observ'd very punctually the various

Readings,

Readings, call'd *Keri Cetib*. *Keri* signifies the Word as it is read ; *Cetib* the same Word as it is found written in the Text of the Bible. So that *Keri* is only the true Reading of the Word in the Margin, opposite to the wrong Reading (or *Cetib*) in the Text.

The Keri Cetib what

THE Initiatory Rites of the Jewish Church, or those whereby Persons were made Members of it, were (1.) *Circumcision* of the Male ; this was call'd by God, a Sign and Seal of the Covenant he made with Abraham and his Posterity the *Israelites*. See its Institution, and the Manner thereof in *Gen. xvii.* (2.) *Purification*, by Baptizing or Washing the Body with Water ; this was succeeded by (3.) An Oblation of two *Turtles* or *Pigeons*. Now, since the *Jews* have neither Altar nor Sacrifice, they say *Circumcision* and *Purifying* sufficeth for a *Male Profelyte* ; and the latter only for *Female Profelytes*.

The Initiatory Rites of the Jews. Circumcision.

Purification. Oblation.

THE *Jews*, before their Captivity, were extremely prone to *Idolatry*, or the Worship of *Heathen Deities* ; As (1.) *Moloch* (sometimes call'd *Milcon*) the God of the *Ammonites* and *Moabites*. (2.) *Adramelech*, *Anamelech*, *Ashima*, *Nergal*, *Nisroch*, *Nibhas*, and *Tartak*, Idols of the *Assyrians* ; of which see *2 Kings xvii. 30, 31.* (3.) *Succoth Benoth* ; this is supposed to be an *Assyrian Temple*, with the Idolatrous Rites belonging thereto. (4.) The Idols of the *Egyptians* were *Giun* or *Remphan*, (*Saturn* ;) *Tammuz*, (or *Adonis*,) of which see *Ezek. viii. 14.* (5.) *Teraphim* ; these were a kind of *Household Gods*, or *Images* in human Shape, which the *Israelites* had also from the *Egyptians*. Another *Idol* of theirs was *Baal-Zephon* ; though, according to others, it was the Name of a City. Also *Apis*, or the *Golden Calf*, is reckon'd amongst the *Egyptian Idols*. (6.) The Idols of the *Moabites* worshipped by the *Jews* were *Baal-Peor*, *Numb. xxv. 3.* and *Cemosh*, *Numb. xxi. 29.* (7.) The Idol of the *Zidonians* was *Ashtaroth*, supposed to be *Venus* or the *Moon*. (8.) *Baal Zebub* (i. e. the God of *Flies*,) was an Idol of the *Philistines*. Also *Dagon* was another of their Gods, *Judg. xvi. 23.* His lower Part was in the Form of a *Fish*. These are the principal Idols mention'd in the *Old Testament* ; to worship which the perverse *Jews* often left the Worship of the true God.

The Idolatry of the Jews.

The Idols of the Ammonites. Of the Assyrians.

Of the Egyptians.

Teraphim, what.

Of the Moabites.

Of the Philistines.

THERE

The most notable Things in the first Temple wanting in the second.

viz. The Ark and Mercy-Seat.

The Shecinah, or Divine Presence.

The Urim and Thummim.

The celestial Fire of the Altar.

The Holy Oil.

The Holy Spirit of Prophecy.

Compensated by the Presence of the Messiah.

The Jewish Creed contains 13 Articles.

THERE were divers notable Things in the Temple which Solomon built, too many here to relate; the most material of which were lost to the Jews in the Destruction of that Temple by Nebuzaradan, Captain-General to Nebuchadnezzar King of Babylon. These are reckon'd (1.) The Ark of the Covenant, wherein were kept the two Tables of the Law; and over it the Mercy Seat, or Propitiatory; from whence the High Priest receiv'd the Divine Oracles immediately from (2.) The Shecinah, or Divine Presence of the Majesty of God, which appear'd in Form of a Cloud over the Mercy Seat between the extended Wings of the Cherubims. 'Tis thought these sacred Oracles were utter'd with an audible Voice. (3.) The Urim and Thummim, which Words signify Lights and Perfections. They pertain'd to the Breast-Plate which the High Priest wore, but how cannot be said; only 'twas a necessary Qualification to appear before the Shecinah withal. (4.) The Celestial Fire of the Altar, which at first came down from Heaven, and kept burning incessantly till the Temple was destroy'd. See Levit. ix. 24. and 2 Chron. vii. 1. (5.) The Holy anointing Oil; wherewith the High-Priests and the Kings were consecrated in their Ordinations and Inaugurations. (6.) The Holy Spirit of Prophecy: Though this did not presently cease upon the Destruction of the first Temple, as all the abovemention'd Particulars entirely did; none of which were found in the Second Temple built under Zerubbabel the Governor of Judah. But the Want or Deficiency of these things was abundantly compensated by the Presence of him who was the Desire of all Nations, the truest Shecinah, and who did really fill that latter House with Glory, as was foretold, Hagg. ii. 7.

THE Jewish Creed consisteth of the following thirteen Articles. (1.) There is one God, Creator of all things; all-perfect and sufficient. (2.) That he is an uncompounded, indivisible Essence. (3.) That he is Immaterial. (4.) Absolutely Eternal. (5.) Alone to be worship'd, without any Mediators or Intercessors. (6.) There have been, and may be Prophets. (7.) That Moses was the greatest Prophet. (8.) That every Syllable of the Law was given to Moses by Inspiration; and that the traditionary Expositions

sitions of the Precepts were entirely a *divine Revelation* given to *Moses*. (9.) That the Law is immutable. (10.) That God knows and governs all our Actions. (11.) That he rewards the *Observance*, and punishes the *Violation* of his Laws. (12.) That the *Messiah* will appear, but that his Coming is delay'd. (13.) That God will raise the *Dead*, and judge all Mankind.

THE *Jewish State and Government* hath undergone divers Changes and Mutations. It was (1.) *Patriarchal*, when the *Fathers* of their several *Families*, and their *First-born* after them, exercis'd all kind of Government, *Ecclesiastical* and *Civil*, being both *Priests* and *Kings* in their own *Houses*. They had Power over their own *Families*, to *blefs*, *curse*, *cast out*, *disinherit*, and to *punish* with *Death*, as is apparent from the *Book of Genesis*. After this *Prerogative of Primogeniture* ceased, there ensued (2.) A sort of *Dictatorial Government*; or that under *Moses*, *Jeshua*, and the *Judges*. But during the *Times* of the *Judges*, there were very often long *Intervals* and *Vacancies* between the *Death* of one, and the *Election* of another *Judge*; in all which the *State of Government* depended on the *Administration* of the *Great Court* of the *Seventy Elders*, call'd the *Sanhedrim*; first instituted *Numb. xi. 16.* in respect of whom the Government may be said to have been *Aristocratical*. To this succeeded (3.) A *Monarchical State*, or that of *Kings*; which began in *Saul*, and continued in *Judah* and *Israel* till the *Captivity* of each, which was about 520 Years. (4.) From the *Captivity* to the *Advent of Christ* their *State* was *various*, and *confus'd*: As first they were under *Aichmalotarchs*, or *Heads of the Captivity*; from *Zerubbabel* to *John Hircanus*, fifteen inclusive, all of the *Posterity* of *David*. Secondly, From thence the *Sovereign Authority* departed from the *House of David*, to the *Maccabees*, or *Assmonean Princes*; beginning in *Matathias Maccabeus*, and ending in *John Hircanus*, five inclusive, all of the *Lineage* of *Levi*. Lastly, They came again under the *Regal State*, being govern'd by *twelve Kings*; the first of which was *Aristobulus*, and the last *Agrippa Junior*, the last of the *Line* of *Herod the Great*. In him the *Kingdom* of the *Jews* expir'd, and

The Jewish
State and Go-
vernment.
Patriarchal.

Dictatorial
and Aristocra-
tical.

Monarchical.

Captivated
State.
Aichmalo-
tarchs.

Maccabees, or
Assmonean
Princes.

Regal State
again.

and not long after their *City* and *Temple* were destroyed, and themselves dispersed over the Face of the whole Earth, for their heinous Sin in rejecting and crucifying the Lord of *Life* and *Glory*.

T H E R E seems plainly to have been a *two-fold Court* of *Judicature* amongst the *Jews*; the first Ecclesiastical, appointed and held to judge and determine *Affairs and Matters* relating to *Church Discipline*: The second, a *Civil Judicatory*, concern'd in the *Affairs* of the *Common-Wealth*. The first was call'd a *Synagogue*, the other a *Council*: As *Matt. x. 27*. The *Spiritual Court* consisted of *Levites, Priests*, and the chief *Fathers* of *Israel*, as *2 Chron. xix. 8*. and in *Causes* spiritual for the Lord, the *High-Priest*, or *Archbishop*, was Chief. The *Civil Courts* of *Justice* were made up of *secular Judges*, and *various Officers*, of which more by and by.

*The Censures
of the Ecclesi-
astical Court.*

*Excommuni-
cation of three
Kinds.
Nidui, or
Separation.*

*Cherem or
Anathema.*

*Shammatha or
Maranatha.*

*The Jewish
Sanhedrim
twofold.*

T H E Office of the *Ecclesiastical Court* was to determine *Appeals* in all *Controversies* of *Difficulty*; but chiefly, as a *Representative Church*, to *censure* and *excommunicate Offenders* against the *Orders* and *Laws* of *Church Discipline*. Of *Excommunication* there were *three Degrees*. (1.) The first is call'd *Nidui*, i. e. a *Separation*, or *putting away*; a *casting out* of the *Synagogue*, *John ix. 22*. Such an one was not to approach within seven Feet of any *Man* or *Woman* to eat, drink, wash, shave, &c. It was of *thirty Days Continuance*, but might be shorten'd by *Repentance*. (2.) The next Degree of *Excommunication* was call'd *Cherem* by the *Jews*, but *Anathema* by the *Greeks*; and was a *solemn devoting* or *delivering* an heinous *Offender* over to *Satan*, with direful *Curses* out of *Deut. xxviii.* and elsewhere. This was call'd *Excision*, or a being cut off from the *People*. (3.) The third and heaviest Degree of *Excommunication* was *Shammatha*, or in *Syriac*, *Maranatha*; this was join'd with an *Exsecration*, by which a *Person* was render'd *exsecrable* before *God* and *Man*, and destin'd to *divine Vengeance*. See *1 Cor. xvi. 22.* *2 Tim. iv. 14.* and *Judges v.*

T H E *Civil Courts* of *Judicature* were two, the great and lesser *Sanhedrim*: The great *Sanhedrim*, or *supreme Senate*, consisted of *seventy-one Judges*, answering to *Moses* and the *seventy Elders* mention'd *Numb.*

Numb. xi. They were elected indifferently out of the *The great San-*
Chief Priests, Scribes, and Elders of the People. bedrim.
 Their *Qualifications* were *Piety* and *general Learning*,
Men of Gravity, and Fathers of Children, that they
 might be tender. The Place where they sat was call'd
Gazith, or Council-Chamber, in the Temple. Their *Gazith.*
 way of sitting was thus; the most considerable for
Wisdom and Reputation was placed uppermost in the
 Middle, representing *Moses*, and was call'd *Nasi, Nasi.*
 Prince or *President*. The next for Worth sat at his
 Right Hand, and was call'd *Abb Beth Din, Father of* *Abb Beth Din.*
 the *Council, or Vice-President*. On the Left Hand
 sat the *Chacham or Wiseman*; and then the rest of the *Chacham.*
Sanbedrim sat part on the Right, part on the Left, in
 a *Semicircular Form*. Their Power extended to all *Their Power.*
Persons and Causes, to a whole Tribe, a *Prophet*, an
High Priest, or even the *King himself*.

THE lesser *Sanbedrim, or Beth Din*, was of two *The lesser San-*
 Sorts; the first consisted of *twenty-three Aldermen*, and *bedrim.*
 the other was a *Triumvirate* of *three Aldermen* only.
 These inferior Courts sat in the Gates of all the com-
 mon Cities of the Land. The Power of the *Trium-*
virate extended only to petty Matters, as *Whipping,*
pecuniary Mulets, &c. That of the *twenty-three* ex-
 tended to Capital Cases, and sat (but with a restrain'd
 Power) on Life and Death. From these lower Courts
 Appeals were made to the *High Court*, from whence
 there was no Appeal.

THE Punishments of the *Jews* were of two Sorts, *Punishments*
Capital, and not Capital. The *Capital Punishments* *Capital, four.*
 were four; (1.) *Lapidation, or Stoning to Death.* (2.) *Lapidation.*
Ustion, or Burning; though the Person burnt was al-
 ways first *strangled.* (3.) *Decollation, or a Behead-* *Ustion.*
ing of the Person. (4.) *Strangulation, a choaking a* *Decollation.*
 Person by a *String* tied about his Neck. The other *Strangulation.*
Penalties were (1.) *Imprisonment.* (2.) *Restitution.* *Punishments*
 (3.) *Retaliation.* (4.) *Banishment to the Cities of* *not Capital.*
Refuge, which were six, besides the forty Cities of
Levites, which were also in some Measure *Asylums* or
Sanctuaries for *Felons* to fly to for *Safety*.

OF *Jewish Money*, there is (1.) The *Gerah*; in *Of the Jewish*
 Value five Farthings. (2.) The *Bekah*; one Shilling, *Monies.*
 three Half-pence. (3.) The *Shekel*; two Shillings
 and three Pence Farthing. (4.) The *Mina*, six
 Pounds

Pounds sixteen Shillings and ten Pence Half-penny. (5.) *Talent* of Silver; worth 342 Pounds three Shillings and nine Pence. (6.) *Talent* of Gold; worth 5475 Pounds. (7.) They had also a Golden Shekel, worth one Pound sixteen Shillings and six Pence.

Jewish dry Measures.

THE *Jewish dry Measures* were, (1.) *Gachal*, one tenth of a Pint. (2.) *Cab*, almost three Pints. (3.) *Omer*, about five Pints. (4.) *Seah*, one Peck and one Pint. (5.) *Ephah*, three Pecks and three Pints. (6.) *Lethech*, about four Bushels, and (7.) The *Homer* or *Choron*, about five Bushels and a Pint.

Jewish Liquid Measures.

THE *Jewish liquid Measures* were, (1.) *Caph*, a little above half a Pint. (2.) *Log*, three quarters of a Pint. (3.) *Cab*, about three Pints. (4.) An *Hin*, about one Gallon and two Pints. (5.) *Seah*, two Gallons four Pints and an half. (6.) *Bath* or *Ephah*, about seven Gallons and an Half. (7.) *Coron* or *Chomer*, about seventy-five Gallons, five Pints and an Half.

Jewish long Measures.

THE *Jewish Measures of Length* were, (1.) The *Palm*, about three Inches and an Half. (2.) *Span*, near eleven Inches. (3.) *Cubit*, one Foot and ten Inches nearly. (4.) *Fathom*, seven Feet three Inches and an Half. (5.) *Ezekiel's Reed*, eleven Feet, very nearly. (6.) *Measuring Line*, 145 Feet and eleven Inches. (7.) *Stadium*, 145 Paces and four Feet and an Half. (8.) *Sabbath Day's Journey*, 729 Paces and an Half. (9.) *A Day's Journey*, thirty-three Miles and 172 Paces.

Jewish Months and Years.

THE *Jewish Months* were (1.) *Abib* or *Nisan*. (2.) *Zif* or *Fair*. (3.) *Sivan*. (4.) *Thamuz*. (5.) *Ab*. (6.) *Elul*. (7.) *Ethanim* or *Tizri*. (8.) *Bul* or *Marchesuan*. (9.) *Chislen*. (10.) *Tebeth*. (11.) *Shebeth*. (12.) *Ader*. And sometimes a Month was intercalated, call'd *Ve-Ader*. As the Months stand here, they make the *Jews Ecclesiastical Year*. But

Ecclesiastical and Civil.

Their *Civil Year* began on the seventh Month *Tizri*. The first Month *Abib* answer'd to part of *March* and part of *April*; and so on of the rest. The first, second, third, and fourth Watches of the Night began at six, nine, twelve and three o'Clock, from Evening to Morning respectively.

Watches.

Of MAHOMETANISM, or
the LIFE, RELIGION, and PO-
LITY of MAHOMET and his
Followers.



MAHOMET (or, according to the true Mahomet's Pronunciation, Mohammed,) was born at Birth. Mecca a City of Arabia; he was of the Tribe of the *Koraishtes*, which was reckon'd the noblest in all that Country, and was descended in a direct Line of *Primogeniture* from *Pher Koraisb*, the first Founder of it. His Father's Name was *Abdollah*, and the Name of his Mother *Amena*. His Birth was in the Month of *May* in the Year of Christ 571.

THOUGH he was of so noble a Descent, yet in the beginning of his Life he was in a very poor and despicable Condition. For his Father dying before he was two Years old, all the Power and Wealth of his Family devolv'd to his Uncles, especially to *Abu Taleb*, who afterwards bore the chief Sway in *Mecca*, and by whose Protection he afterwards broach'd his *Imposture*, and was supported against all Opposers. Mean at the Beginning.

HE lived with his Mother till he was eight Years of Age, when she dying, his Grandfather took him; but he also dying in a Year after, *Mahomet* was committed to the Care of his aforesaid Uncle *Abu Taleb*, who being a very great Merchant, brought his Nephew up in the Affairs of Merchandise, and sent him with his Camels to *Syria*. How he came to rise.

BUT while he attended his Uncle's Factors in the publick Market-place at *Bosra*, *Mahometan Authors* say that a learned Monk there perceiv'd a kind of Lustre shining upon his Face, and from thence conjectured, and began to predict that *Mahomet* should be a

A fictitious Prediction concerning him.

Prophet: But this is a gross *Fiction*, he not being acquainted with that Monk till many Years after.

*He marries
his Wife
Cadigha, and
becomes great.*

HE continued with his Uncle till twenty-five Years of Age, when one of the chief Men of the City dying, he left his Stock, which was very considerable, to his Widow *Cadigha*, who invited *Mahomet* to be her Factor, and married him in the twenty-eighth Year of his Age. By this means being equal in Wealth to the greatest Man in the City, his Ambition made him aspire to the *Sovereignty* which his Ancestors had enjoy'd, and of which he himself had been only depriv'd by being left an *Orphan*.

*Follows Mer-
chandise.*

HIS trading into *Egypt*, *Palestine*, and *Syria*, made him well acquainted both with *Christians* and *Jews*; and perceiving that each of them were divided into several *Seets*, he concluded nothing would be more likely to raise him a Party, and aggrandize him, than the advancing of a new *Religion*.

*Projects the
Scheme of a
New Religion.*

AND for such a Change he judg'd the *Citizens* of *Mecca* might be well dispos'd, because their *Traffic* and frequent Converse with the *Christians* had taken them very much off from their gross *Idolatry*, which they had hitherto been addicted to: But at this time were fallen from *Heathenism* into *Zendicism*, an Error near a-kin to *Sadducism* among the *Jews*; as denying *Providence*, the *Resurrection*, and a future *State*.

*Zendicism,
what.*

*He draws up
a Scheme of
his Imposture.*

HE therefore betook himself to frame such a *Religion* as might best go down with them, and so drew up a *Scheme* of that *Imposture* he afterwards deluded them with, which being a Medley of *Judaism*, the *Heresies* of the *Eastern Christians*, and the old *Pagan Rites* of the *Arabs*, with an *Indulgence* to all *sensual Delights*, it did too well answer his Design, in drawing Men of all Sorts to the embracing of it.

*He previously
leads an Ere-
mitical Life.*

BUT that he might not immediately turn *Preacher* against that *Idolatry* which he had practis'd with others, and set up for a Reformer, and take upon him the Character of a *Prophet*, (since he was known to lead an *ill Life*,) without some previous Change; in the thirty-eighth Year of his Age he began to affect an *Eremitical Life*, and withdrew every Morning to a *solitary Cave* near the City, where he pretended to spend his Time in *Fasting*, *Prayer* and *Meditation*:

And

And there it is supposed he had his *Consults* with those who help'd him to frame his *Alcoran*.

HIS first Attempt was to draw his Wife into a Belief of his *Imposture*, and in order to this when he return'd at Night from the *Cave*, he used to tell her of *Visions* that he had seen, and *strange Voices* which he had heard in his *Retirement*. But when she rejected these *Stories* as his own *vain Fancies*, or else *Delusions* of the *Devil*, he farther pretended a *Converse* with the *Angel Gabriel*; which she being as backward to believe as the other, he was obliged to suborn a *fugitive Monk* (he kept then in his House) to practise with her, who accordingly did so, and at last he brought her to be persuaded of the Truth of all her Husband told her; and also that he really was call'd to the *Prophetic Office*; and thus she became his first *Profelyte* in this *Imposture*. He declares himself Prophet, and first attempts to proselyte his Wife.

HAVING thus liv'd retir'd two Years, he had gain'd, as he thought, a sufficient *Reputation* of *Sanctity* for his Design, and in the fortieth Year of his Age he began to take on himself the *Title* of the *Apostle of God*, and began to propagate his *Delusions*, but privately for the first four Years, and only among such as he had most Confidence in. He propagates his Delusions privately.

HIS first *Profelyte* was *Cadigba* his Wife (as has been said) his second was his Slave *Zayd Ebu Hareth*, and the third his Cousin *Ali*, Son of his Uncle *Abu Taleb*. He tempted his Servant *Zayd* by promising him his *Freedom*, and upon his receiving his Religion, he accordingly *manumised* him. And from hence it became a Law among the *Mahometans* ever since, to make their *Slaves free*, whenever they receive their Religion. His first Profelytes.

BESIDES these, he having profelyted eight or nine more of the principal Men of the City, began openly to publish his *Imposture* to the People of *Mecca*, in the forty-fourth Year of his Age; and publicly declar'd himself to be a *Prophet* sent from *God* to reduce them from the Error of *Paganism*, and to teach them the *true Religion*. Begins to propagate his Imposture openly.

HE said, his *Religion* was not a *new one*, but that *old one* which God first gave to *Adam*; and when lost in the Corruption of the old World, restor'd it again by Revelation to *Abraham*, who taught it his Son *Ismael*. His crafty way of insinuating the same.

Ismael their Fore-father ; and that he, when he first planted himself in *Arabia*, instructed Men in the same *Religion* which he had receiv'd from *Abraham*. But their *Posterity* afterwards corrupted it into *Idolatry*, and therefore God had now sent him to destroy this *Idolatry*, and again to restore the *Religion* of their *Patriarch Ismael*. Therefore according to his own Account, the *Jews* do not improperly call his pretended *Religion Ismaelism*.

He pretends Revelations from God by the Angel Gabriel.

HE pretended to receive all his *Revelations* from the *Angel Gabriel*, and that he was sent on purpose from God to deliver them unto him. And whereas he was subject to the *Falling-Sickness*, whenever the *Fit* was upon him, he said it was a *Trance*, and that then the said *Angel Gabriel* was come from God, with some new *Revelations* to him, the *Splendor* of whose Appearance he could not bear, and so was the Cause of those *Trances*.

His chief Arguments to seduce Men.

His Paradise, or Heaven describ'd.

His Hell, or Punishments he threatned.

THE main *Arguments* by which he deluded Men into his *Imposture*, were his *Promises* and *Threats*, as being those which easiest work on the Affections of the *Vulgar*. His *Promises* were chiefly of a *sensual Paradise*, which he so cunningly fram'd as to make it consist and abound with all those *Pleasures* and *Delights*, which were most desirable and best suited the *Gust* of the *Arabians* : Such as *Women* ever young and most beautiful ; pleasant *Rivers* and *Streams* of *Water*, cooling *Drinks*, shaded *Gardens*, delicious *Fruits*, with an eternal *Enjoyment* of all other *Pleasures* that enamour and transport the *Senses*. And with the same kind of *Subtlety* he form'd the *Notion* of *Hell*, consisting of such *Punishments* as appear'd to them most *afflicting* and *grievous* to be born ; and which he threaten'd to all who would not believe in him. And such *Torments* were, drinking nothing but *boiling* and *stinking Water* ; breathing nothing but *exceeding hot* and *scorching Air* ; dwelling for ever in *continual Fire*, and surrounded with *black, hot and salt Smoak*, as with a *Coverlid* ; that they should eat nothing but *Briars* and *Thorns*, and the *Fruit* of the *Tree Zacon*, which should be in their *Bellies* like *burning Pitch*, and such like things. Now such an *Heaven* and *Hell*, as is here describ'd, could not fail of *alluring* and *terrifying* an *ignorant sensual* People, living in the *hot or torrid Zone*.

To these *Motives* he added (that nothing might be wanting) the Threats of grievous *Punishments* and *Judgments* in this Life, as well as in the *future*, if they would not hearken to him : And to this End set forth to them on all Occasions, what terrible Destructions had fallen upon the Heads of such as would not be instructed by the Prophets sent before : How the *old World* was delug'd, *Sodom* destroy'd by Fire, the *Egyptians* plagued and drowned, for *Contempt* and *Disobedience to Noah, Lot and Moses* : And how *Ad and Thamod*, two ancient Tribes of the *Arabians*, (as he on purpose feigned) were totally extirpated for the same Reason.

He threatens temporal Judgments to the Disobedient.

BUT that which gravell'd him most was, that his Opposers demanded to see a *Miracle* from him : For said they, *Moses, Jesus*, and the other *Prophets*, by your own Confession, work'd Miracles to prove their *Mission* from God ; and therefore if thou art a *Prophet*, and greater than they, as thou boastest thyself to be, do thou work the like *Miracles* to manifest it to us : Raise the Dead, cause the *Dumb* to speak, the *Deaf* to hear, &c. This Objection he endeavour'd to answer or to evade divers ways ; but his most considerable Reply was, that their Predecessors had condemned the Miracles of *Saleb*, and the other *Prophets*, and that for this Reason God would work no more among them. But none of his Reasons being satisfactory, many of his Followers departed from him. And therefore finding his *Sophistry* too weak, he retiring to *Medina*, another City of *Arabia*, took the Sword in Hand, and having gotten an *Army* to back his Cause, began to sing another Note. For then he pretended that since God had sent *Moses* and *Jesus* with *Miracles*, and yet Men would not be obedient to their Word, he had now sent him, in the last Place, without *Miracles*, to force them by the Power of the Sword to do his Will. And pursuant thereto he forbade his *Disciples* to enter into any farther Disputes about his *Religion*, commanded them to destroy all who opposed it, promis'd them great Rewards for it in *Heaven*, and that those who died in the Cause should have a *Crown of Martyrdom*.

He is gravell'd with the Objection of his Inability to work Miracles.

He retiring to Medina, takes the Sword, which he says must suffice instead of Miracles.

HOWEVER, 'tis not to be deny'd but there are *Legendary* which ascribe abundance of *Miracles* to

False Miracles ascrib'd to

him : As (1.) That he did cleave the Moon in two. (2.) That Trees went forth to meet him. (3.) That Water flow'd from between his *Fingers*. (4.) That the Stones saluted him. (5.) That he fed a great Company with a little Food. (6.) That a Beam groan'd at him. (7.) That a Camel complain'd to him. (8.) That a Shoulder of Mutton told him of its being poison'd ; and several others too ridiculous for *Mahomet* himself, or his *Doctors* to own ; who renounce them all, and acknowledge that he did not work any *Miracles* ; but allege, that the Eloquence of the *Alcoran*, and the Excellency of its Doctrine, is instead of all *Miracles*, since it was compos'd by a Man who could neither write nor read.

Instead of Miracles he alleges the Alcoran.

The Accomplishes of the Impostor in contriving the Alcoran.

BUT in answer to this, the *Christian Doctors* (though they grant the *Alcoran* is the Standard of *Arabic Eloquence* and *Elegancy* of Language, yet) prove that *Abdia Ben Salon*, a *Persian Jew*, was the chief Assistant to *Mahomet* in composing the *Alcoran* ; for having been a *Rabbi* himself, he very well understood the *Jewish Religion* and *Learning*, and wrote all his pretended *Revelations* for him for the ten first Years, and therefore no doubt he was a principal Contriver in the forging of them. He was likewise assisted by a *Christian Monk*, one *Sergius*, (in *Arabic*, *Bahira*) a *Nestorian*, in what relates to *Christianity* ; who being excommunicated and expell'd his *Monastery* for a great Crime, for shame retir'd to *Mecca*, and was entertain'd by *Mahomet* as before said. For the *Heathenish Rites* of the *Arabs*, *Mahomet* understood them well enough himself : But the Story of his teaching a *Bull* to bring him the *Alcoran* on his *Horns*, and breeding *Pigeons* to come to his Ears to make them believe it was the *Holy Ghost*, the *Christian Doctors* now reject as fabulous.

The Mesra, or his Night-Journey to Heaven.

IN the twelfth Year of his pretended *Mission* is placed the *Mesra*, that is, his famous Night-Journey from *Mecca* to *Jerusalem*, and from thence to *Heaven* ; which was thus. At Night being in Bed with his Wife *Agepha*, he heard a knocking at his Door ; whereon arising, he found there the *Angel Gabriel* with seventy Pair of Wings expanded, whiter than Snow, and clearer than *Crystal*, and the Beast *Alborak* standing by him, on which they say the *Prophets* used

to

to be carried from Place to Place, upon the Execution of any divine Command.

Mahomet describes this Beast *Alborak* as white as Milk, of a mixt Nature and Size, between an *Ass* and a *Mule*, and as swift as *Lightning*, from whence it hath its Name. *On the Alborak.*

Gabriel with a pleasant Countenance in the Name of God salutes *Mahomet* at the Door, and tells him he was sent to bring him to God into Heaven, where he should see strange Mysteries, not lawful to be seen by any other, and bid him mount the *Alborak*. But the Beast being wanton and skittish with Idleness (having rested from the Time of Christ till now) would not stand still for *Mahomet* to stride him, till he had first sooth'd him by promising him a Place in Paradise : But by this Means quietly mounting, the Angel *Gabriel* leading the Way with the Bridle in his Hand, he was convey'd from *Mecca* to *Jerusalem* in an Instant of Time. *Gabriel the Angel sent to conduct him.*

ON his Arrival all the departed *Prophets* and *Saints* appeared at the Gate of the Temple and saluted him, and attending him into the chief Oratory, desired him to pray for them, and then departed : Whereupon, going out of the Temple, they found a *Ladder of Light* ready fix'd for them, which they ascended, leaving the *Alborak* there tied to a Rock till their Return. *He bribes the Alborak to stand still.*

ON their Arrival at the *first Heaven*, upon *Gabriel's* knocking at the Gate and informing the *Porter* who was there, the Gates of prodigious Largeness immediately opened. This *first Heaven*, he says, was all of pure *Silver*, and that the Stars hung from it by *Chains of Gold*, each being as big as Mount *Nobo* near *Mecca*. Also that here he saw a decrepid old Man, who proved to be our first Father *Adam*, who saluting him, gave God thanks for so great a Son, and then commended himself to his Prayers. *His Arrival at Jerusalem.*

HE tells us also he here saw a Multitude of *Angels* in all manner of Shapes, viz. of *Men*, *Beasts*, and *Birds* of all Sorts ; and among the latter he saw a *Cock*, white as Snow, of so prodigious a Bigness, that his Feet standing on the *first Heaven*, his Head reach'd up to the *second*, which was at the Distance of five hundred Years Journey. Others say his Head reach'd *They arrive at the first Heaven ; what he saw there.*

His Description of a wonderful Cock.

ed

ed through all the *seven Heaven* as far as the Throne of God, which is above seven times higher.

Farther describ'd.

THIS Cock, say they, hath his Wings all over decked with *Carbuncles* and *Pearls*, and extended *East* and *West* at a Distance answerable to his *Height*: That he is the chief Angel of the Cocks; and that every Morning *God* singing an Hymn, this Cock constantly join'd him by *Crowing*, which is so loud, that all (except *Men* and *Fairies*) hear it in *Heaven* and in *Earth*, and then all other Cocks which are in *Heaven* and *Earth* crow also. The *Mahometans* say, the Voice of one constantly reading in the *Alcoran*, of him who early each Morning prays for *Pardon* of Sins, and the Voice of this Cock, are three Voices which *God* always hears. All this Stuff about the Cock arose from the Fables of the *Talmud*.

They arrive at the second Heaven; and what they saw there.

FROM the first Heaven the Impostor tells us he ascended to the Second at the Distance of five hundred Years Journey above it, (which was the Distance of each of the Seven above the other.) This Heaven he says was of *pure Gold*; here he saw *Noah*, who congratulated him, and recommended himself to his Prayers. Here also he says he saw twice as many Angels as before, and among them one who standing on the *second*, his Head reach'd to the *third Heaven*.

They arrive at the third Heaven; and what they saw there.

FROM thence he ascended to the *third Heaven*, made of *precious Stones*, where at the Entrance he met *Abraham*, who desired the Favour of his Prayers. And here he saw many more Angels than the former, and one of so prodigious a Size, that the Distance between his two Eyes was *seventy Thousand Days Journey* (according to our rate of Travelling.) This the Angel *Gabriel* told him was the *Angel of Death*; for before him was a large Table, wherein he wrote the Names of Persons that are to be born, computes the Days of their Life, which when they have compleated he blots them out, and then those Persons die.

They arrive at the fourth Heaven; what they saw there.

FROM hence he ascended up to the *fourth Heaven*, which was all of *Emerald*; where at the Entrance he met *Joseph* the Son of *Jacob*, who desired a Share in his Prayers also. Here were still more Angels than in the preceding Heaven, one of which also reach'd from this to the *fifth Heaven*, who was continually weeping and lamenting, which *Gabriel* told him was for

for the *Sins of Men*, and their Destruction consequent thereupon.

FROM hence he ascended up to the *fifth Heaven*, *They ascend which was made of Adamant*, where he found *Moses*, *to the fifth* who recommended himself to his Prayers, and there *Heaven.* also saw a much greater Number of *Angels* than in the former *Heaven.*

FROM hence he ascended to the *sixth Heaven*, *To the sixth* which was of *Carbuncle*, where he met with *John the Baptist*, who committed himself to his Prayers also. Here likewise were more *Angels* than in the former *Heaven.*

FROM hence he ascended to the *seventh Heaven*, which was all made of divine Light; and here he found *Jesus Christ*, to whom (now) *Mahomet* recommends himself, and desired Christ to pray for him. By this he acknowledg'd Christ to be the greater, to flatter and please the *Christians*. Here he said he found a much greater Number of *Angels* than in all the other *Heavens* together; among which was one extraordinary Angel having *seventy Thousand Heads*, and in every Head so many *Tongues*, and every Tongue uttering so many *distinct Voices* at once, with which he continued Day and Night incessantly praising God. *To the seventh Heaven; and what they saw there.*

THE Angel *Gabriel* having brought him thus far, told him, That it was not permitted him to go any farther, and therefore directed him to ascend up the rest of the Way to the *Throne of God* by himself; which he perform'd with Difficulty, passing through Waters and Snow, &c. till he came where he heard a Voice saying to him, O *Mahomet*, salute thy Creator; from whence ascending higher, he came to a Place of a vast *Extension of Light*, of such Brightness as could not be endured, and this was the *Habitation of the Almighty*, where his Throne was placed; on the *right Side* of which he says there were written these *Arabic Words*, *La ellah elallah Mohammed Resul ollah*, i. e. There is no God but God, and *Mahomet is his Prophet*. This is the *Mahometan Creed*, and which he says was written on all the Gates of the seven *Heavens*. *The Angel Gabriel leaves him, and he ascends to the Throne of God by himself.* *The Abode of God.*

BUT approaching the *Presence of God* within two *Bow-shots* he says, he saw him sitting on his *Throne* with a Covering of *seventy Thousand Veils* before his Face: *He is admitted to approach and converse with God.*

Face: That God put forth his Hand, as a Token of his Favour, and laid it upon him, which was of that exceeding Coldness, that it pierced the very Marrow of his Back, and he could not bear it: That after this, God conversed familiarly with him, reveal'd to him a great many *hidden Mysteries*, and made him understand *his whole Law*; and gave him many things in Charge concerning his instructing Men in the Knowledge of it; and in conclusion, gave him *several Privileges* above the rest of *Mankind*. And then being *dismiss'd*, he return'd to the *Angel Gabriel*, who reconducted him through all the *seven Heavens*, and sat him on the *Alborak*, which he left tied at *Jerusalem*, and from thence with the Bridle in his Hand conducted him to *Mecca*; and all this in the Space of one tenth Part of a Night.

He's dismissed, and reconducted to Mecca.

The Relation hereof exposes him to Contempt.

HIS relating this *extravagant and ridiculous Fiction* the next Morning exposed him to great *Derision* and *Contempt*; and many of his Disciples, ashamed of him as an *abominable Lyar*, left him in *Indignation*. And many more had done so, had not *Abu Beker*, a *Partner* in the Cheat, put a Stop to the *Defection*, by his avouching and pretending to believe the Truth of all *Mahomet's Jargon*, stolen from *Talmudical Fables*.

They of Mecca conspire to cut him off.

He is inform'd of it, and flies to Medina.

THE *Imposture* being constantly attended with *Contentions*, *Insurrections* and *Male-practices*, which it occasion'd in *Mecca* and other Cities of *Arabia*, the Chiefs of *Mecca* resolv'd at last to strike at the Root, and prevent the further spreading of the *Mischief* by cutting him off, who was the *Author* of it. But he having timely Notice thereof, fled secretly by Night with all that would follow him to *Medina*, another great City of *Arabia*; where he settled himself, and built a *Mosque* for the *Exercise* of his *new Religion*: And order'd all *Computations* of Time to be made henceforwards from his said *Flight*; which therefore was the Beginning of the *Mahometan Era*, call'd *Hegira*, which (in *Arabic*) signifies *the Flight*. It commences from *July* the 16th, *A. D.* 622.

The Era of the Hegira, or Flight.

The Impostor propagates his Religion with the Sword.

THE *Impostor* having now obtain'd a Town at his Command, where to arm his *Party*, and head them with *Security*; after *Preaching* up his *Imposture* for thirteen Years, resolv'd now to take the *Sword* in Hand

Hand and fight for it: And henceforth forbids all Manner of disputing about his Religion; and makes it no less than *Death* for any one to contradict and oppose what he taught; commanding all to be slain with the Sword, that would not embrace it.

BUT having, by the Fortune of War, got Footing again at *Mecca*, and perceiving that his Followers still bore a superstitious Veneration for the *Temple* there, he thought it his Interest to preserve their *Temple* in its former Honour of being the *chief Place of Worship*, and therefore order'd his *Disciples* to pray with their Faces towards *Mecca*, and ordain'd the *Temple* there the chief Place of *Worship*, to which they were still to perform their *Pilgrimages*, as in former Times. And to magnify the *Temple*, and give greater *Honour* and *Reputation* thereto, the *Impostor* told them it was first built in Heaven for the *Angels* to worship in; that there *Adam* worship'd while in *Paradise*, (which they say is in Heaven,) but being cast down from thence, he pray'd God that he might have such a *Temple* in *Earth* as that was in *Heaven*; and that thereupon God sent down the *Similitude* of that *Temple* in *Curtains of Light*, and pitch'd it at *Mecca*, where it now stands, which is, say they, exactly under the *Original* in *Heaven*; with much more of the like *fabulous Stuff*.

He recovering Mecca, makes the Temple there the chief Place of his Worship.

IN the seventh Year of the *Hegira*, i. e. after his *Flight*, he led up his Army against *Chaibar*, an *Arabian* City, and entering the Town, took up his *Quarters* in the House of one *Horeth*, a principal Inhabitant, whose Daughter *Zamath* dressing a *Shoulder of Mutton* for his Supper, *poison'd* it: For she said she would make *Tryal* whether he were a *Prophet* or no: If he were a *Prophet*, he could certainly tell, said she, that the *Meat* was *poison'd*, and so would receive no Harm from it: If he were not a *Prophet*, she thought she should do the World great Service in ridding it of so cruel a *Tyrant*, as she said. Now some say, the *Shoulder of Mutton* spoke to him, and told him it was *poison'd*. But alas! it seems it was too late to do him any good; for *Basher*, one of his *Company*, eating greedily of it, fell down dead in the Place; and tho' *Mahomet* had not immediately the same Fate, because not liking the *Taste*, he spit out again what he had taken

He is poison'd at Chaibar, and dies in three Years after.

His Age and Burial.

saken into his Mouth, yet he let down enough to do his Business, for he was never well after this *Supper*, and at three Years End died of it in the City of *Medina*; he died on his *Birth Day*, being just sixty-three Years old, in their *Computation*, which makes only sixty-one of our Years. He was buried in the Earth, and not suspended in an Iron *Coffin*, by means of *Loadstones*, in the Air, as has been *fabulously* reported.

An Account of the Alcoran, or Mahometan Bible.

THE *Alcoran*, or rather (as it should be call'd) the *Coran*, is the Name of that Book which contains the *Mahometan* Laws and Doctrines; and signifies, the *Reading*, or that which ought to be *Read*; as we call our Bible, the *Scripture*, or *Writing*. The *Mahometan Bible*, or *Coran*, is divided into four Parts, and each of them into Chapters, and those again into Verses. The Chapters have ridiculous *Titles*, as the *Chapter of the Cow*, of the *Elephant*, of the *Emmet*, of the *Spider*, of the *Fly*, &c. And the whole is in such a disorderly and incoherent Method, that it is but one continued *Hodge-podge*. Yet have they such a stupid *Veneration* for this Book, that 'tis Death for a *Jew* or *Christian* to touch it, and even for a *Mussulman* himself, (for so they call their pretended *true Believers*) if he touch it with *unwashed Hands*. They pretend God sent it to the *Prophet Mahomet* by the *Angel Gabriel* writ on *Parchment* made of the Skin of the *Ram* which *Abraham* offered in Sacrifice instead of his Son *Isaac*; with abundance of other superstitious and impious *Trumpery* concerning it, not worth rehearsing.

Some of the principal Doctrines and Tenets of the Mahometans.

THE chief Principles of *Mahometanism* are as follow; (1.) They believe that God is but *One*, as well in *Person* as *Essence*. (2.) That *Mahomet* is his *Prophet*. (3.) That *Angels* are God's Ministers, which execute his *Commands*; of whom the *Angel Gabriel* is Chief. (4.) They hold *Fate* and *absolute Predestination*, which makes them fight *undauntedly*. (5.) They hold an *Heaven* and *Hell*, with such *Rewards* and *Punishments* as have been just now describ'd. (6.) They use *Circumcision*, which they had from the *Jews*. (7.) Their Religion is to be *propagated* by the Power of the *Sword* only, for which Reason their *Imans*, or *Priests*, preach with a *drawn Sword* in their Hands. (8.) That

That the *Mussulmans* who kill *Unbelievers*, thereby merit *Paradise*. (9.) *Mahomet* forbad drinking Wine, Games of Chance, &c. left his Followers should thereby quarrel, fall together by the Ears, and expose his Religion to Hazard. (10.) He allow'd both the *Old* and *New Testament*, and cites many Passages from each to prove and justify his pretended *Apostleship*. (11.) They hold many Things by *Oral Tradition*, which they pretend *Mahomet* receiv'd from the Mouth of God in the *Night Journey* before related. (12.) The *Mussulmans* are allowed not only a *Plurality* of *Wives*, but to keep as many *Women Slaves* for their Lust as they can afford to buy, and the Children of the latter are as *legitimate* as those of the former: The old Letcher, *Mahomet* himself, having had fifteen or twenty Wives for his own Share. (13.) *Mahomet* forbid *Adultery* to his Followers, yet himself took the Wife of his Servant *Zayd*. (14.) If two Places of the *Coran* disagree or be *contradictory*, they revoke one of them, or *disannul* it. (15.) They hold the *Immortality* of the Soul. (16.) That the *Punishments* of the *Wicked* are not *eternal*. (17.) That the very *Devils* themselves shall at last be converted by the Power of the *Coran*. These, with innumerable other silly, false, and ridiculous *Tenets* and *Traditions*, make the monstrous Bulk of *Mahometan Doctrines*, which 'tis amazing to think how even *Superstition* itself could swallow. A Religion bespeaking only an *illiterate Barbarian*, who could neither *Write* nor *Read*, for its Author; *fabulous Jews*, *idolatrous Pagans*, and *heretical Popish Christians* for its *Votaries*; and the *Sword* and *Destruction* for the *Means* of its *Propagation*.

THE *Notes* and *Characters* inseparable from an *Imposture* are reckon'd by a learned Man as follow: (1.) That it must always have for its *End* some *car-nal Interest*. (2.) That it can have none but *wicked Men* for its *Authors*. (3.) That both these must necessarily appear in the very *Contexture* of the *Imposture* itself. (4.) That it can never be so framed, but that it will contain some *palpable Falsities*, which will discover the *Falsity* of all the rest. (5.) That where-ever it is first propagated, it must be done by *Craft* and *Fraud*. (6.) That when entrusted with many

The Notes or
Marks of an
Imposture from
Dean
Prideaux.

many *Conspirators* it can never be long concealed. And, (7.) That it can never be *established* without *Force* and *Violence*.

Now that all these must belong to *every Imposture*, and all particularly did so to *Mahometanism*; and that none of them can be charged upon *Christianity*, the *aforesaid learned Dean* hath largely proved in his *Letter* to the *Deists* of the *present Age*.



Of P A G A N I S M; or, The
DIVINITIES of the HEATHEN,
and the WORSHIP paid to them.



ALTHOUGH the great and awful *The true Ori-*
Creator of all Things had most legi- *ginal of Ido-*
bly imprinted the Characters of Deity *latry and*
on all the wonderful Works of his *Heathen Su-*
Hands; and that thereby the invifible *perftitions*
Things of him from the Creation of *plainly ac-*
the World are clearly feen, being underftood by the *counted for.*
Things that are made, viz. his eternal Power and *Rom. i.*
Godhead or Deity; and in fo clear a Manner that
they who acknowledg'd it not muft needs be without
Excufe; yet that when Men thus infallibly knew God,
they neither glorified him as God, nor were thank-
ful to him for his conftant Bleffings, but inftead of
this became brutifhly fupine and vain in their Imagi-
nations, and their Hearts, through fuch wretched
Folly, was envelop'd in Ignorance, and darken'd like
the Earth eclipsed from the Splendor of the Sun; and
fo perverse, that they feem'd even not to like to re-
tain God in their Knowledge: I fay, that then God
did judicially give them up to a reprobate Mind; in
Confequence of which they foon chang'd the Glory
of the uncorruptible God, into an Image of corruptible
Man, and of Birds and four-footed Beasts, and Rep-
tiles; and thus changing the true Worfhip of God
into lying and diabolical Delufions, they worfhipped
and ferved the Creature more than the Creator, who
is over all, God, bleffed for ever, Amen. And this
is the true Original of all that grofs Darknefs and ido-
latrous Superftition which had overwhelm'd the World,
and introduced fuch a numberlefs Variety of falfe and
fabulous Deities in the Beginning.

F

THE

*Polytheism,
what.*

THE Religion (or rather the *Impiety*) of the *Pagans* or *Heathen Nations*, is properly call'd *Polytheism*, or the acknowledging a *Plurality of Gods*; for their Number was almost *infinite*. It is also call'd *Idolatry*, because they worshipped their *Divinities* by various Representations, call'd *Idols* or *Images*.

*Ninus, the
first Author of
Idolatry.*

'TIS generally agreed, that *Ninus*, the first *Assyrian Monarch*, was the first *Contriver* and *Affertor* of *false Gods*; who, to render the *Name* and *Memory* of his Father *Belus* or *Nimrod* immortal, procured a *Statue* of him to be curiously made, and paid *divine Honour* and *Reverence* thereto, and commanded the *Babylonians*, his Subjects, to do the same: and to induce them the easier, he made it a *Sanctuary* for the *Guilty* and *Miserable* to fly to, and be safe.

*The first false
Deity, Bel, or
Baal, or
Jupiter.*

THIS Statue, or Idol of *Ninus*, which represented his Father *Belus*, was in Time call'd *Bel*, and afterwards *Baal*: And this being a general Name for *Lords* and *Rulers*, it imports among the Heathen the same as the sacred Names of *Jehovah* and *Adonai* in the Scriptures, *i. e.* *Sovereign Lord*; at length this Appellation was chang'd among the *Greeks* for that of *Jupiter* or *Jove*. So that *Jehovah*, *Baal*, and *Jupiter*, all signify the same Thing, only the first is sacred and truly applied; the other *prophane*, and wrongly applied to *Idols*.

*Babylonians
and Assyrians
the first Idolaters.*

IF then *Ninus* was the first *Idolater*, and *Bel* or *Baal* the first Idol, 'tis evident the *Babylonians* and *Assyrians* were the first *People* and *Nation* who fell off from the *Worship* of the true God to *Idolatry* and *Polytheism*; from whence the dire *Contagion* soon spread over the neighbouring *Nations*, and totally infected the *Phœnicians*, *Egyptians*, *Ethiopians*, *Syrians*, *Persians*, *Grecians*, *Indians*, &c. far and near, who have ever since been prone and strenuously addicted to these kinds of *Superstitions*.

*Every thing
in time became
deified.*

THE Nations of the World having thus lost the Knowledge of the true God, and abandon'd themselves to follow the uncertain Conduct of their *confounded Reason*, and the *wild Vagaries* of *Minds* and *Judgments* *judicially blinded*, they quickly shew'd their deprav'd Natures in the ridiculous and senseless Choice they made of their *Gods* and *Divinities*; and the

strange Deficiency of their Reason in the confus'd and endless Variety of them : There being nothing in the *Heavens* or the *Earth*, whether good or bad, that Men could see or be sensible of, but that some People or another had surely deified it.

BUT to be more particular, the *Species* of *Idolatry* may be reckon'd as follow, (1.) The Worship of *Angels*, and *Spirits*, or pure and abstracted *Intelligences*, whom they made to preside over *Kingdoms* and *People*, and in Scripture they are call'd *Elohim* or *Gods*, *strange Gods*, *other Gods*, the *Gods of the Heathen*, &c. of which see *Exod.* xviii. ii. xxii. 19. 2 *Kings* xvii. 7. (2.) The Worship of the *Heavenly Bodies*, the *Sun*, *Moon* and *Stars* ; this in Scripture is called worshipping the *Host of Heaven* ; they imagining great *Virtue* and *benign Influences* to be derived from them to the *Earth* and all things on it. (3.) The Worship of *Idols* or *Images* of various *Forms* and *Shapes*, as of *Men*, *Beasts*, *Birds*, *Fishes*, &c. and this of all others is most universal, and what is most properly call'd *Idolatry*. (4.) The Worship of *Animals* themselves : As *Lions*, *Horses*, *Oxen*, *Sheep*, *Swine*, *Goats*, *Dogs*, *Cats*, *Mice*, *Spiders*, &c. amongst *Beasts* : The *Eagle*, *Ibis*, *Phoenix*, *Hawks*, &c. among *Birds* ; and the *Whale* and other *Fishes* ; with the *Serpentes* of all kinds ; and *Shell-Animals* ; as may be seen in *History*. (5.) The Worship of *inanimate Things* ; as *Fire*, *Water*, *Air*, the *Winds*, the *Earth* ; also all kinds of *Plants* and *Herbs*, *Stones*, &c. (6.) They also worshipped things which were not *Substances*, but mere *Modes* and *Accidents* of *Things* ; as *Life*, *Death*, *Passions of Love*, *Fear*, *Envy*, *Anger*, &c. *Diseases*, as the *Fever* ; also *Health*, *Honour*, &c. the *Virtues*, as *Virtue*, *Faith*, *Hope*, *Justice*, *Piety*, *Mercy*, *Chastity*, &c. Also *Truth*, the *Mind*, *Peace*, *Money*, *Mirth* ; yea *Impudence*, *Calumny*, *Fraud*, *Fury*, *Discord*, *Fame*, *Fortune*, *Silence*, &c. were all esteem'd *Deities*, and had *Temples* built for their Worship. (7.) Another kind of *Idolatry* is the paying *divine Honours* to *Kings*, *Heroes*, &c. who have fought *Battles* successfully, and done many great *Exploits* ; supposing such great *Persons* have somewhat in them more than *Human* ; therefore make their *Images* and bow down to them as *Demi-gods*.

The several
Species of
Idolatry.
First Species.

Second Species.

Third Species.

Fourth Species.

Fifth Species.

Sixth Species.

Seventh
Species.

*Eighth
Species.*

gods. Thus the Emperors of *Persia*, *India*, and *China*, are worship'd at this Day. (8.) The last, and most strange kind of *Idolatry*, is the *worshipping* of *Devils*, and *evil Spirits*; which are call'd *Cacodæmons*; for they say, God is good and will not hurt them, therefore they need not pray to him on that Account; but, say they, the *Devil* and *wicked Spirits* in the Air, as they are inclin'd, and have a Power to do *Mischief*, so they undoubtedly will, if they do not honour them with their *Prayers* and *Sacrifices*, not to do it. And such *diabolical Adorations* are very frequent at this Day in the *Indies* and other Parts of the *Heathen World*.

*The Heathen
Deities rang'd
into proper
Classes.*

THE most convenient Division of the *Gods* and *Goddeesses* of the *Heathen* is according to their several Degrees of *Dignity* and *Superiority* allow'd them; of which we have the following *Classes*. (1.) The *Celestial* *Gods* and *Goddeesses*. (2.) The *Terrestrial* *Deities*. (3.) The *Marine* and *River* *Gods*. (4.) The *Infernal* *Gods*. (5.) The *Subordinate* and *Miscellaneous* *Deities*. (6.) The *Adscriptitious* *Gods*, *Demi-Gods* and *Heroes*. (7.) *Modal* *Deities*. Of which a few things in Order.

*The celestial
Gods and God-
deesses.*

THE *celestial* or *superior* *Gods* are these *Five*, viz. *Jupiter*, *Apollo*, *Mars*, *Mercury* and *Bacchus*. The *celestial* *Goddeesses* are these *Five*, viz. *Juno*, *Minerva* or *Pallas*, *Venus*, *Latona*, and *Aurora*.

Jupiter.

JUPITER, the most high of all the *Heathen* *Divinities*, is said to be the Son of *Saturn* and *Ops*; was born at the same Birth with his Wife *Juno*, and educated in Mount *Ida* in *Crete*, because his Father *Saturn* sought to devour him: But being grown, he depos'd and banish'd his Father, and divided the Kingdom of the World between himself and his Brethren *Pluto* and *Neptune*. The *Jurisdiction* of the Sea he gave to *Neptune*; *Pluto* was sent to rule in *Hell*; but reserv'd to himself the *Sovereignty* of *Heaven* and *Earth*. He was esteem'd the most *beneficent* *Deity*, and was therefore call'd the *Father of the Gods and Men*. He overcame the *Giants* and the *Titans* in Battle; with other great *Exploits* recorded of him. He committed abundance of *Incest*, *Adultery*, and *Lewdness* of all kinds, in various Shapes. (*A fine Character of a God!*) Almost every Nation had its

Jupiter:

Jupiter: Varro reckon'd three hundred *Jupiters*, as a Part of the thirty thousand Gods own'd by the *Heathen*. In the *Pantheon* he sits upon a Throne of *Ivory* and *Gold*, under a rich *Canopy*, with a *Beard*, holding *Thunder-bolts* in his *Right-hand*, and a *Scepter* of *Cypress* in his *Left*, with an *Eagle* on the *Top*; is invest'd with an embroider'd *Cloak*, and *Golden Shoes*.

APOLLO was the next principal *Deity* of the first Rank: He was the Son of *Jupiter* and *Latona*; born in the Island *Delos*, and at the same Birth with *Diana*. He was the God whom they made to preside over *Music*, *Physic*, *Poetry*, and *Prophecy* or *Divination*, as also the *Chace*. He was always represented as a young and beardless Youth. He kill'd the Serpent *Python*, and afterwards the *Cyclops*; he flea'd *Marfyas* the *Fiddler* alive for challenging him at *Music*; with *Neptune's* Help he built the Walls of *Troy* for King *Laomedon*: Being degraded, he kept *Admetus* the King of *Theffaly's* Cattle. He turn'd *Daphne*, whom he loved, into a *Laurel*; and his Boy *Hyacinth* into a *Violet*. He had a famous *Temple* and *Oracle* at *Delphos*. He was also call'd *Phæbus*, *Sol*, *Horus*, &c. His Image was a graceful and comely Youth, with long Hair, a *Laurel-Crown*, Garments embroider'd with *Gold*, holding a Bow and Arrow in one Hand, and an *Harp* in the other.

MARS is the next celestial *Divinity* with the *Heathen*; Son of *Jupiter* and *Juno*, or as *Ovid* says, of *Juno* alone; who conceiv'd him at the Smell of a Flower, shew'd her by the Goddess *Flora*. He was reputed the God of *War* and *Armies*, as his Sister *Bellona* was the Goddess thereof. He lay with *Venus*, the Wife of *Vulcan*, who at last contrived to catch them together in an *Iron Net*, as he accordingly did, and thus expos'd them naked to the *Laughter* and *Diversion* of the Gods. He was represented riding in an high *Chariot*, drawn by two furious Horses call'd *Fear* and *Terror*, driven by his Sister *Bellona*; he was cover'd with *Armour*, and holds a *Spear* in one Hand, and brandishes a *Sword* in the other, as though he breath'd *Fire* and *Death*, and threatn'd every Body with *Ruin* and *Destruction*.

Mercury.

MERCURY was the Son of *Jupiter* and *Maia*; he was reputed the God of *Eloquence* and *Merchandise*; he was suppos'd the *Messenger* and *Interpreter* of the Gods; and therefore he had Wings on his Head and Heels; and a *Caduceus* in his Hand, which is a Rod with two *Serpents* twisted round it, in token of *Peace* and *Amity*. He was also look'd upon as the God of *Thieves*, and the *Arbiter* of *Peace*. He guarded the Ways and conducted the deceased Souls to Hell. The *Egyptians* call'd him *Anubis*. The Inventions of the Lute, the Harp, the Exercise of *Wrestling*, &c. are ascrib'd to him. And 'tis probably thought the famous *Trismegistus* in antient Times was the Original of this *Deity*.

Bacchus.

BACCHUS was the God they most delighted in, though he was their greatest Shame. He was the Son of *Jupiter* by *Semele*; he was look'd upon as the God of *Wine* and *Drunkenness*, and *Revelling*. He was crown'd with *Ivy* and *Vine-leaves*, held a Javelin encircled with the same, rode on a Chariot drawn sometimes by *Lions* and *Tigers*, sometimes by *Lynxes* and *Panthers*; preceded by a drunken Band of *Satyrs*, *Demons*, *Nymphs*, &c. *Silenus*, his Foster-Father, often comes after him, sitting on an Ass that bends under his Burthen. He was represented naked, with a red Face, lascivious Looks, in an effeminate Posture, dispirited with *Luxury*, and overcome with *Wine*.

Juno.

OF the celestial Goddesses, *JUNO* is allow'd the Pre-eminence. She was Daughter of *Saturn* and *Ops* or *Cybele*; and Sister and Wife to *Jupiter*. She was esteem'd the Goddess of *Kingdoms* and *Riches*, and known by a great Diversity of Names; and as most other Gods were referr'd to *Jupiter*, so almost all other Goddesses were incorporated in the Person of *Juno*. She was represented as a majestic beautiful Woman, riding in a Golden Chariot, drawn by *Peacocks*, wearing a Scepter in her Hand, and a Crown on her Head set about with *Roses* and *Lillies*, and encircled around with fair *Iris* or the Rain-Bow. She was also judg'd to preside over *Matrimony*, *Child-bearing*, *Births*, and was the guardian Angel of Women; and therefore had many Temples and Altars erected in Honour of her.

MINER-

MINERVA or *PALLAS*, was (as'tis said) *Minerva* or born of *Jupiter's* Brain without a Mother; she was *Pallas*. the Goddess of *Wisdom*, and all *Arts*; she invented *Spinning*, *Weaving*, the *Use of Oil*, making and colouring Cloth, *Building*; she refused to marry any of the Gods, and led a *Virgin Life*: Her *Statue* was of a stern and fierce Countenance, cloath'd with *Armour*, (as being the *President* and *Inventress* of *War*) a glittering *Head-piece* of Gold; a golden *Breast-Plate*; a Lance in her Right-hand, and a terrible Shield (with the Head of *Medusa*) in her Left. A fighting Cock stood by her; and an *Owl*, as an *Emblem* of *Sagacity*, because it seeth in the Dark. There were also many *Minerva's* as well as *Joves* and *Juno's*.

VENUS was the Goddess of *Love* and *Beauty*; *Venus*. she sprang from the *Froth* of the *Sea* arising from the *Secrets* of *Cælus*, which were cut off and thrown therein: As soon as born, she was driven upon the *Island Cyprus*, where she was educated, and afterwards being carried to Heaven, was married to *Vulcan*, whom she soon cuckolded, with her *Gallant Mars*. Her Image was most fair and beautiful, view'd itself with a soft and becoming *Pride*; was clothed with a *purple Mantle*, glittering with *Diamonds*, with two *Cupids* on her Side, the *Graces* round her, with the charming *Adonis* holding up her *Traie*. Her Chariot was of *Ivory*, drawn by *Swans*, *Doves*, or *Swallows*, as she directed.

LATONA was the Daughter of *Phæbe* and *Cæus* *Latona*. the *Titan*, the Wife of *Jupiter*, and Mother of *Apollo* and *Diana*. She brought forth her Twins in the *Isle Delos*, which before was said to swim in the *Sea*, but by *Neptune's* Order became fix'd and immoveable for *Latona's* Purpose. Whilst she was big and wandering through the Fields of *Lycia*, being very thirsty she attempted to drink of a *Spring* at the Bottom of a Valley, but the Country *Rustics* hinder'd her, and bid her depart; she intreated, they obstinately refus'd to admit it; whereupon in a *Wrath* she curs'd them, said, *May ye always live in this Water!* Immediately they were turn'd into *Frogs*, and leap'd into the muddy Water, where they have ever after liv'd.

AURORA was the Daughter of *Terra* and *Titan*, *Aurora*. the Sister of *Sol* and *Luna*, and Mother of the Stars

and the Winds. She was the *Goddeſs* of the *Morning*. She was represented ſtanding in a *Chariot* of ſhining *Gold*, drawn by two *white flying Horſes*; her Countenance ſhone like *Gold*, her *Fingers* red like *Roſes*; crown'd with a *Star*, radiating *Beams of Light* and *Glory* all around her; in one *Hand* ſhe held the *Reins*, in the other a burning *Flambeau*. Such are the *Fables* and *poetical Fictions* concerning the *Celeſtial Deities*.

The Terreſtrial
Gods and
Goddeſſes.

THE *Terreſtrial Deities* (ſo call'd becauſe their *Habitations* are in the *Earth*;) are *Saturn*, *Janus*, *Vulcan*, *Æolus*, and *Momus*. The *Terreſtrial Goddeſſes* are principally *Veſta*, *Cybele*, *Ceres*, the *Muſes*, and *Themis* with her *Siſters*. To theſe *Terreſtrial Gods* there are alſo ſome peculiar to the *Countries* and the *Woods*, and are therefore call'd the *Gods of the Woods*, which will be afterwards deſcrib'd.

Saturn.

SATURN the Son of *Cælum* and *Terra*; he married his *Siſter Ops*; his eldeſt Brother was *Titan*; and his Children, *Jupiter*, *Neptune*, *Pluto*, and their *Siſter Juno*. *Titan*, by the Perſuaſion of his Mother *Ops*, and *Siſter Cybele*, reſign'd his Right to the Kingdom of the World to his Brother *Saturn*, on Condition that he ſhould not ſuffer any of his Male Children to live; that the Empire of the World might devolve to his Poſterity after *Saturn's* Death. Whereupon *Saturn* is ſaid to have devour'd all his Male Children. But his Wife *Ops* ſav'd *Jupiter*, by ſending him away, as alſo *Neptune* and *Pluto*; which when *Titan* afterwards came to hear of, he made War upon *Saturn*, and put him and his Wife in Priſon. At length *Jupiter* overcame *Titan*, and ſet them free: But *Saturn* being inform'd his Son *Jupiter* would deprive him of his Kingdom, endeavour'd to make him away; which when *Jupiter* underſtood, he baniſh'd his Father, and took on him the Sovereignty of the World. In his Days was the *Golden Age*. He was represented as a decrepit deform'd old Man, in whoſe *Left Hand* was a *Scythe* (which he was ſaid to invent,) and in his *Right* a *Serpent* biting his Tail. The Whole of which is a proper *Emblem* of *Time*.

Janus.

JANUS is ſaid to be the Son of *Cælus* and *Hecate*: He was eſteem'd to preſide over the *Beginning* of all Buſineſs. He was represented with two Faces looking both ways at once. He ſits upon a Throne before

before twelve Altars, as being the first Institutor of *Altars, Temples, and Religious Rites*. He holds a *Key* in one Hand and a *Rod* in the other, as he was the *Guardian of the Ways*, and the Inventor of *Locks, Doors and Gates*. From him the Month *January* took its Name, as it stands between the Old and New Years, and beholds them both as it were with two Faces.

VULCAN was the Son of *Jupiter* and *Juno*, and *Vulcan*, yet notwithstanding his *Descent* was so high, and himself a God, he was oblig'd to follow a Trade, and that of a *Blacksmith* too, poor God! For being contemptible on Account of his Deformity, he was cast down from Heaven into the Isle *Lemnos*; he broke his Leg with the Fall, and has ever since been *Lame*. Here he erected his Forge, and made *Thunderbolts* for his Father *Jupiter*, and *Armory* for the other Gods. His Servants were call'd *Cyclops*, because they *Cyclops* had but *one Eye*, which was in the Middle of their Foreheads, of a circular Figure. Their Names were *Brontes, Steropes, and Pyracmon*, and were born of *Neptune* and *Amphitrite*. Though *Vulcan* was so nasty and deform'd, he had the greatest Beauty among all the *Divinities* to his Wife, viz. the Goddess *Venus*, who indeed cuckolded him, but that was no wonder, *Vulcan*, in short, was the *God of Fire*, and presided over *Metals*, and *Artificers* concern'd therewith.

ÆOLUS was the Son of *Jupiter* and *Acesta*, or *Æolus*. *Segesta*; he was the *God of Winds*, which he kept under his Power confined in a *Cave* in one of the *Æolian* Islands where he dwelt; who therefore could set them at *Liberty*, raise *Storms* and *Hurricanes*, or otherwise could restrain their *Rage*, and cause perfect *Calms* by recalling the Winds and fettering them in their Prisons.

MOMUS the Son of *Nox* and *Somnus*; he was *Momus*. (as his Name imports) a *Jester, Mockers, or Mimick*; his Life was idly spent in nicely observing the *Sayings* and *Actions* of the Gods; and then in censuring and deriding them, with the greatest Freedom. For Instance, when *Neptune* had made a Bull, *Minerva* an House, and *Vulcan* a Man, they made *Momus* Judge who had shewn the greatest Skill; but he blamed them all: *Neptune*, for not placing the *Bulls-Horns* in his Forehead

Forehead before his Eyes, that he might have push'd the surer : And *Minerva*, because her House was fix'd, and could not be carried away in case 'twas placed among bad Neighbours : But *Vulcan* he said was most imprudent, because he did not make a *Window* in the Man's Breast, whereby to view his subtil and designing Thoughts.

The Terrestrial
Goddesses.
Vesta.

THE Terrestrial Goddesses are, (1.) *Vesta* the Wife of *Cælum*, and Mother of *Saturn* ; (for *Ops*, *Vesta*, and *Terra*, are all one Goddess.) She was the Goddess of Nature ; in her Temple was a perpetual Fire, attended and kept alive by those call'd the *Vestal Virgins* ; but 'tis said by some this belong'd to another *Vesta*, always a *Virgin* herself, and Goddess of Elemental

Cybele.

Fire. (2.) *Cybele* is the next, but by many is confounded with *Vesta*, also call'd *Rhea*, the Goddess of the Earth ; and therefore was represented with Towers on her Head, sitting on a Chariot drawn by Lions, and a great Number of Trees and Animals round about her.

Ceres.

(3.) *Ceres* the Daughter of *Saturn* and *Ops* ; the Goddess of Corn and Tillage. *Pluto* having stolen her Daughter *Proserpina*, she lighted two Torches at Mount *Ætna*, to seek after her through the World. Therefore her Statue holds a Torch in one Hand, and a Nosegay of Poppies in the other, to sooth her Grief with Sleep. Her Head was beautified with Yellow Hair, and crown'd with a Turban compos'd of the Ears of Corn.

The Muses.

(4.) The *Muses* ; they were Nine Virgins, the Daughters of *Jupiter* and *Mnemosyne* : They were Mistresses of the Sciences, and Presidents of

Their Names.

Musicians and Poets. Their Names were *Calliope*, the Goddess of Rhetoric ; *Clio*, of History ; *Erato*, of Amours and Poetry ; *Thalia*, of Comedy ; *Melpomene*, of Tragedy ; *Terpsichore*, of Dancing and Balls ; *Euterpe*, of Singing and Music ; *Polyhymnia*, of Song and History ; and *Urania*, of Astronomy and Divinity. They were all call'd by several Names : As

Themis,
Astræa, and
Nemesis.

Pierides, *Heliconiades*, *Parnassides*, *Cytherides*, *Castalides*, and *Aganippides*. (5.) Lastly, *Themis* with *Astræa* and *Nemesis* conclude the Number of these Deities. *Themis* was born of *Cælus* and *Terra*, and is the Goddess of Right. *Astræa* the Daughter of *Jove* and *Themis*, and Goddess of Justice. *Nemesis* was the Daughter of *Jove* and *Necessitas* ; and was

the

the Goddesses that rewarded *Virtue* and punished *Vice*.

THE *Sylvestrian* and *Rural* Gods are reducible to the following Classes, viz. (1.) *Satyrs*, who were partly of *Human*, partly of *Bestial Form*; for they had Heads of *human Shape*, but arm'd with *Horns*; they had *brutish Ears*; crooked *Hands*; rough hairy *Bodies*; *Goat's Legs* and *Feet*; and *Tails* not much shorter than *Horse-Tails*. Nothing can be more salacious and libidinous than a *Satyr*. The principal of these filthy Monsters was the famous God *Pan*, who first invented the *Musical Pipe*, and presides over *Shepherds* and *Hunters*, the *Mountains* and *Flocks* thereon. Also *Sylvanus* the God of the *Woods*, and *Silenus* the God of *rural Jollity*, were two other remarkable *Satyrs*. (2.) The *Fauni* or *Fauns*; these differ only in *Name*, not in *Form*, from *Satyrs*. These were properly the *Agrestic Deities* or *Gods of the Fields*, whom the *Country Boors* had in great Veneration. (3.) *Priapus* was the Son of *Venus* and *Bacchus*, and therefore no wonder he was the most impudent and obscene Deity that *Paganism* itself could produce: his Story is too filthy to relate, and shall therefore say no more of him. (4.) *Aristæus* and *Terminus* were two other *rural Deities*. *Aristæus* invented the Arts of making *Oil*, *Honey*, and *Cheese*; for which they paid him *Divine Honours*. *Terminus* (a mere *Bound-Stone*) was reckon'd a God, and that the *Boundaries* and *Limits* of *Men's Land* and *Estates* were under his *Protection*.

Gods of the Woods.
Satyrs.

Pan.

Sylvanus.

Silenus.

The *Fauni*.

Priapus.

Aristæus and *Terminus*.

THE *Rural* and *Sylvan Goddesses* were counted the following. (1.) *Diana*, (call'd *Luna* and *Hecate*) the Daughter of *Jupiter* by *Latona*, at the same Birth with *Apollo*; who out of love to *Chastity*, avoiding *Consort* with *Men*, retired into the *Woods*, and there diverted herself with *hunting wild Beasts*, carrying always a *Bow* and *Quiver*: Whence she is reckon'd the Goddess of the *Woods* and the *Chace*. Also she was supposed to be very helpful to *Women* in *Child-bearing*. (2.) *Pales* was esteem'd the Goddess of *Shepherds* and *Pasture*, and reckon'd the *Inventress* of *Corn*, &c. and was thought by some to be the same with *Ceres* or *Vesta*. (3.) *Flora* was the Goddess and *President* of *Flora*, *Flowers*. But at first was only an infamous shameless Strumpet,

The *Rural Goddesses*.
Diana.

Pales.

Flora.

Ferona and
Pomona.

Vertumnus.

Nymphs.

Genii.

Dryades.

Hamadryades.

Oreades.

Nepææ.

Limoniades.

The Marine
Deities.

Neptune.

Amphitrite.

Proteus.

Triton.

Oceanus.

Strumpet, who by her vile Trade had heap'd up a great deal of *Money*, and made the People of *Rome* her *Heir*; who, in return, placed her among the *Divinities*, and honour'd her *Memory* with the most *lewd* and *dishonourable* Actions and Practices on her *Birth-Day*.

(4.) *Ferona* and *Pomona* were two *Goddeesses* of *Trees* and *Fruits*. The latter was advised to a State of *Matrimony* by the God *Vertumnus* in the Guise of an *hagg'd old Woman*, but to no Purpose; till turning himself into a *fair young Man*, he caused her soon to feel the Force and Power of Love, and she readily submitted to his Wishes. (5.) The *Nymphs*; these were a *Company* of neat pretty charming Virgins, placed near the pleasant Gardens of *Pomona*. They were of three sorts, viz. 1. *Celestial*, call'd *Genii*, who guide the *Spheres*, and dispense the Influences of the Stars to Things on Earth. 2. The *Terrestrial Nymphs*, as *Dryades*, who presided over the *Woods*, and liv'd in the *Oaks*; and *Hamadryades*, who are born and also die with the *Oak*. The *Oreades*, which presided over the *Mountains*. The *Napææ*, which presided over the *Groves* and *Valleys*. The *Limoniades*, over the *Meadows* and *Fields*. 3. The *Marine Nymphs*, of which by and by.

THE third Class of *Heathen Deities*, are those we call *Marine* and *River Gods* and *Goddeesses*; the principal of which are the following. (1.) *Neptune*, the Son of *Saturn* and *Ops*, and Brother to *Jupiter* and *Pluto*; his Wife *Amphitrite*, Daughter of *Nereus*; and those were the two chief Deities of the Sea: He was represented with black Hair and blue Eyes, array'd in a Mantle of *Azure*, holding a *Trident* for his Scepter in his *Right Hand*, and embracing his Queen with his *Left*. He stands upright in his Chariot drawn by Sea Horses, and attended by Nymphs, &c. (2.) *Proteus* was the Son of *Neptune*, say some; others say, of *Oceanus* and *Tethys*: His Business was to tend the *Sea Calves*; and was remarkable, for that he could turn himself into all Shapes. (3.) *Triton*, the Son of *Neptune*, and was also his Trumpeter; his Shape was a *Man* to the *Middle*, a *Dolphin* below, and his two Fore-feet like Horses, with two circled Tails. (4.) *Oceanus* was the Son of *Cælum* and *Vesta*, Husband to *Tethys*, God of the *Sea*, and Father of

of

of the Rivers and Springs. (5.) *Nereus*, the Son of *Nereus*.
Oceanus and *Tethys*, and Father of fifty Daughters,
 call'd from him *Nereides*, or *Sea Nymphs*. (6.) *Pa-* *Nereides*,
læmon and his Mother *Ino*, together with the Fisher- *Palæmon*,
 man *Glaucus*, are reckon'd among the *Sea Deities*. *Ino and*
 (7.) The *Sirens*: These were a kind of *Mermaids*, *Glaucus*.
 having the Faces of Women, but Bodies of *Flying* *Sirens*.

Fish. They were excellent Songsters that play'd on
 the *Sicilian Coasts*, and tempted Passengers on Shore,
 where they sang them asleep, and then kill'd and
 robb'd them. (8.) *Scylla* and *Charybdis* were two
 other Sea Monsters; *Scylla* was the Daughter of *Phor-*
cus, belov'd by *Glaucus*; whom therefore the Witch
Circe by her *Inchantments* turn'd into a *Rock*, with
 Dogs about her lower Parts. *Charybdis* was a very
 ravenous Woman, who stole away *Hercules's Oxen*,
 for which Theft *Jupiter* struck her dead with *Thun-*
der, and then turn'd her into a *Gulph*, or *Whirlpool*
 in the *Sicilian Sea*, and over-against *Scylla*. (9.)
 The *Sea Nymphs* were the *Nereides* aforesaid. The
Naiades or *Naiades*, which preside over Fountains and
 Springs. The *Potamides*, which preside over Rivers;
 and *Limnades*, who preside over Lakes.

Scylla, and
Charybdis.

Watry Nymphs
Nereides.
Naiades.
Potamides.
Limnades.

WE are now come to the Class of *Infernal Dei-*
ties; but let us first take a cursory View of the
 gloomy Regions where they dwell, and over which
 they rule. The general Name thereof is *Hades* or
Tartarus, both which signify what we call *Hell*. The
 Passage leading thereto was a wide dark *Cave*, through
 which you pass by a *steep rocky Descent* till you ar-
 rive at a *gloomy Grove*, and an *unnavigable Lake* call-
 ed *Avernus*, from whence such *Poisonous Vapours* arise
 as strike Birds dead flying over it. Yet over this Lake
 the Souls of the Dead must pass; to which End a
 nasty, old, decrepid, long-bearded Fellow, call'd
Charon, attends with a *Ferry-Boat*, and carries them
 over to the other Side, after they have paid him his
Fare, which is at least an *Half-penny*.

A View of the
Pagan Hell.

Hades or
Tartarus.

The Lake
Avernus.

Old Charon.

AFTER this there are four Rivers to be pass'd
 over, viz. (1.) *Acheron*, whose Waters are *extreme*
bitter. (2.) The next they met with was *Styx*, a
Lake rather than a *River*, and so sacred to the Gods,
 that if any swore by it, and broke his *Oath*, he was
 depriv'd of his *Godhead*, and drank no *Nectar* for an
 hundred

The Rivers of
Hell.
Acheron.
Styx.

Cocytus.

hundred Years. (3.) The next was the *River Cocytus*, which flows out of *Styx* with a lamentable groaning Noise; and imitates the *Howling*, and increases the Exclamation of the *Damned*. (4.) The last is the River *Phlegethon*, so call'd because it swells with *Waves of Fire*, and all its Streams are *Flames*.

The three-headed Dog
Cerberus.

THE Souls having pass'd these Rivers, are conducted to the Palace of *Pluto*; where the Gate is guarded by *Cerberus*, a Dog with *three Heads*; whose Body is cover'd with *Snakes* instead of Hair. This Dog is the *Porter of Hell*, begotten of *Echidna* by the Giant *Typhon*. We are now arrived to

Pluto and
Proserpina.

PLUTO the *King of Hell*; the Son of *Saturn* and *Ops*, and Brother of *Jupiter* and *Neptune*. He obtain'd these *infernal Dominions* by Lot when his Father's Kingdom of all the World was divided as before related; and also because he invented *Burying* and *funeral Obsequies* for the Dead. He sat on a Throne cover'd with *Darkness*, holding a *Key* in his Hand, and crown'd with *Ebony*, and by him his Queen *Proserpina*, whom he stole from *Ceres*, as before observ'd.

Plutus, or
Mammon.

SOME, from a Likeness in Name and Office, to *Pluto* join *Plutus* the God of *Riches* and *Wealth*, the Son of *Jason* by *Ceres*; he is the same Deity which in the *New Testament* is call'd *Mammon*. He was blind and lame, injudicious and very timorous.

Judges of
Hell *Minos*,
Æacus and
Rhadaman-
thus.

THE next *Ministers* in the *Oeconomy* of *Hell* are the three Judges, *Minos*, *Æacus*, and *Rhadamanthus*; the two first were the Sons of *Jupiter* by *Europa*, the latter by *Ægina*. These are believed to judge the *Souls of the Dead*. *Rhadamanthus* judg'd the *Asiatics*, and *Æacus* the *Europeans*. But *Minos* holds a *Golden Scepter*, sits alone, and superintends the *Judgments of the other two*.

Clotho,
Lachesis,
Atropos.

THE *Fates* come next to be observed: They are three old Ladies, array'd in Garments of *Ermine*, white as *Snow*, with a *Purple Border*. They are the Daughters of *Erebus* and *Nox*; the Goddeesses of *Destiny*; their Names are *Clotho*, *Lachesis*, and *Atropos*. These order and manage the fatal *Thread of Life*. *Clotho* draws the Thread, *Lachesis* turns the *Wheel*, and *Atropos* cuts it asunder when spun to a due Length; then down we drop to *Ades* or *Hell*.

THE

THE *Furies* (call'd also *Eumenides*, *Diræ*, and *The Furies of Canes*,) next present themselves. They have *Faces* like *Women*, their Looks full of *Terror*, hold lighted *Torches* in their Hands, and *Snakes* and *Serpents* lash their *Necks* and *Shoulders*. They are the *Daughters* of *Nox* and *Acheron*; their Names are *Alecto*, *Tisiphone*, and *Megæra*; all call'd by one common Name *Erinnys*. Their Office is to punish the Crimes of wicked Men, and to torment and frighten them by following them with ghastly *Miens* and burning *Torches*.

Alecto, *Tisiphone*,
Megæra.

MOREOVER in these *infernal Regions* you meet with the most *antient Deities*, *Erebus*, and his Wife *Nox*, of whom *Mors* was born, and his Brother *Somnus*. *Erebus* and *Nox* preside over *Darkness* and the *Night*; *Mors*, over *Death*; and *Somnus* is the *God of Sleep*, who by his Servant *Morpheus* sends *Dreams* to us above while sleeping.

Erebus, *Nox*,
Mors, *Somnus*, *Morpheus*.

IN Hell are also the following *Monsters*. (1.) The *Centaur*s; whose upper Parts were *Human*, but had the *Body*, *Legs*, &c. of an *Horse*; begotten of a *Cloud* by *Ixion*, which he thought had been *Juno*. (2.) *Geryon*, who had *three Bodies*; he was slain by *Hercules*, who took away his *Cattle* also, though guarded by a *Dog* with *two Heads*, and a *Dragon* with *seven*. (3.) The *Harpyies* born of *Oceanus* and *Terra*; who had the *Faces* of *Virgins*, *Bodies* of *Birds*, and their Hands arm'd with *Claws*; their Names were *Aello*, *Ocypete* and *Celeno*. (4.) The *Gorgons*, *Medusa*, *Stheno* and *Euryale*, who were *Daughters* of *Phorcus* and *Cete*; they had Heads cover'd with *Snakes* instead of *Hair*; which so terrified *Beholders*, that they immediately turn'd them to *Stones*. (5.) The *Lamiae* and *Empusæ*, who had but *one Eye*, and one *Tooth* common to them all. They had *Faces*, *Necks* and *Breasts* like *Women*; but *Bodies* cover'd with *Scales*, and *Tails* of *Serpents*. (6.) The *Chimæra*, a *Monster* vomiting *Fire*; he hath an *Head* and *Breast* of a *Lion*, the *Belly* of a *Goat*, and the *Tail* of a *Dragon*, and was slain by *Bellerophon*. (7.) The *Sphinx* begotten of *Typhon* and *Echidna*; had the *Head* and *Face* of a *Virgin*, *Wings* of a *Bird*, and *Body* and *Feet* of a *Dog*. Her *Riddle* was explain'd by *Oedipus*; at which being enraged, she threw herself from a *Rock* and died.

The Monsters of Hell.
*Centaur*s.

Geryon.

Harpyies.

Gorgons.

Lamiae and Empusæ.

Chimæra.

Sphinx.

THE

The most famous of the Condemned in Hell.

The Giants.

*Typhon,
Ægæon,
Alcæus,
Tityus.*

Phlegias.

Ixion.

Sisyphus.

The Belides.

Tantalus.

*The Elysium,
or Heathen
Paradise.*

THE most famous of the Condemned in Hell are the following. (1.) The *Giants*, Sons of *Cælum* and *Terra*; they were very high in Stature, had horrible Dragons Feet, and their whole Mien full of Terror: They waged War against the *Celestial Gods* upon the *Phlegrean* Plains, but were overcome, and struck down to Hell with *Jupiter's* Thunderbolts and the Arms of the Gods. The Principal of which were *Typhon*, *Ægæon*, *Alcæus*, and *Tityus*; and in order that they might not rise again, the Island of *Sicily* was fix'd on *Typhon*, and Mount *Ætna* on *Ægæon*, which, when he heaves, casteth forth Flames of Fire; and *Tityus's* Doom was to have a Vultur always gnawing his Liver, which grows afresh every Month. (2.) *Phlegias*, who, for firing *Apollo's* Temple at *Delphi*, was sentenced to have a great Stone hang over his Head, ready to fall each Moment to crush him to Pieces. (3.) *Ixion* his Son, who, for attempting to violate the Chastity of *Juno*, was struck to Hell, and tied to a Wheel, which turns about continually. (4.) *Sisyphus*, a notorious Robber, who is condemn'd to roll a great Stone up to the Top of a Hill, which ever slides down again, and makes his Labour perpetual. (5.) The *Belides* were Fifty Virgin Sisters, Daughters of *Danaus*, who, by his Command, did all (but one) slay their Husbands on the Wedding Night; for which Impiety they were condemned to draw Water out of a deep Well, to fill a Tub whose Bottom was full of Holes like a Sieve. (6.) *Tantalus* invited the Gods to a Feast, and to prove their Divinity, he kill'd, boil'd, and serv'd up the Joints of his Son *Pelops* on the Table before them to eat: They abstain'd from such horrid Diet, and condemn'd *Tantalus* to stand in Water up to his Lips, which he could not drink; and to have Meat placed just at his Mouth, which yet he could not taste; and was thus tormented and teased with eternal Hunger and Thirst.

IN these Tartarian Regions is a Place abounding with all kind of Pleasures and Delights, call'd *Elysium*; because thither the Souls of the Good come after they are loosed from the Chains of the Body. This is the Heathen Paradise of Delights consisting of most pleasant Plains, the most verdant Fields, the shadiest Groves, and the finest and most temperate Air that can

can be produced. After the Souls of the Pious had spent many Ages in the *Elysian* Fields, they drank the Water of the River *Lethe*, which made them forget all things past; and then return'd to the World again, and possess'd new Bodies. 'Twas necessary they should forget the Pleasures they enjoy'd in *Elysium*, that they might willingly return again to this miserable Life.

*The River
Lethe.*

THE Fifth Class of *Heathen Deities* were those of a *Subordinate* and *Miscellaneous* Nature. Such were, (1.) The *Penates*, a sort of *Teraphim*; some of which presided over Kingdoms and Provinces, others over Cities, and others over particular Houses and Families. (2.) The *Lares*, who were the Children of *Mercury* and the Nymph *Lara*; these were another Sort of *Domestic Gods*, who presided over Houses, Streets, and Highways. They were sometimes cloathed in the Skins of Dogs, and sometimes fashioned in the Shape of Hogs. (3.) The *Genii* were a sort of *Demons*, whom they believed to preside over the Births of Persons, and attend them as *Guardian Angels* all their Lives. Those which were proper to Women were call'd *Junones*. (4.) *Libitina*, the Chief of the *funeral Deities*. And besides these, there were particular *Gods* and *Goddeses* allow'd to preside over all the Actions of Life from the Cradle to the Grave.

*Subordinate
Gods.*

Penates.

Lares.

Genii.

Libitina.

THE Sixth Class were those call'd *Demi-Gods* and *Heroes*, who were very numerous; as *Hercules*, *Theseus*, *Perseus*, *Æsculapius*, *Prometheus*, *Atlas*, *Orpheus* and *Amphion*, *Achilles*, *Ulysses*, *Orion*, *Castor* and *Pollux*, *Jason*; and a Multitude of others, of whom it were tedious to recount an *hundredth* Part of what is recorded of their *valiant Exploits*, and heroic and incredible Atchievements; which you may read at leisure in the *Fabulous Poets*.

THE Seventh and last Class of *Heathen Deities* were those I term'd *Modal Deities*; and are the same as mention'd under the *sixth Species* of *Idolatry* beforegoing, of which I shall say no more.

THE Temple which the *Romans* built, and there- in placed the Images of all the *Gods* and *Goddeses*, was called the *Pantheon*, or *Temple of all the Gods*; which when it came into the Hands of *Christians*,

The Pantheon.

Pope Boniface III. dedicated to the Virgin *Mary* and *All Saints*; which was analogous to its former *Use* and *Honour*. But this is only *one Thing* in which the Papists *heathenize*, amongst many others.

The Meat and Drink of the Gods, Ambrosia and Nectar.

THO' the Pagans had such a *Multiplicity of Deities*, not one of them could live without *Eating* and *Drinking*; but to solve this, they artfully found out a Food call'd *Ambrosia*, and a Drink call'd *Nectar*; both which, besides the most sweet and delicious *Taste* and *Flavour*, had the Property of communicating *Immortality*: With these therefore they had the good Manners to feed their *Gods*; and by this means, of mortal Men they made what Number of immortal *Deities* they pleas'd; the Chief of which are those we now discours'd of.

Of the Heathen Festivals.

THE *Festivals* and *Solemnities* of the *Heathen* were necessarily very many, since almost every particular *Deity* was allow'd those *sacred Honours*: As the *Saturnalia*, Feast of five Days Continuance dedicated to *Saturn*; *Adonia*, to *Adonis*; *Ambarvalia*, sacred to *Ceres*; *Bacchanalia* and *Orgia*, *Liberalia*, *Dionysia*, all the Feasts of *Bacchus*; *Cerealia*, others of *Ceres*; *Lemuria*, of the *Lemures* or *Night Ghosts*; *Lupercalia*, of the God *Pan*; *Munychia*, of *Minerva*; *Faunalia*, of the *Fauns*; *Anthesphoria*, of *Proserpine*; *Megalesia*, of *Cybele*; *Floralia*, of *Flora*; with numberless others; all which were celebrated in a manner suitable to their *Notions* of the *Deities* to which they were dedicated.

Pagan Priests.

THE Pagans distinguished the *Priests* peculiar to each *Divinity* by different Appellations also. Thus the *Luperci* were the *Priests* of *Pan*; *Flamen Dialis*, the *Priest* of *Jove*; *Flamen Quirinalis*, of *Romulus*; *Flamen Martialis*, of *Mars*; *Virgines Vestales*, or the *Vestal Virgins*, *Priestesses* of *Vesta*; *Galli*, *Priests* of *Cybele*; *Phœbades*, of *Apollo*, &c.

The Names of Priests in several Nations.

THE different *Heathen Nations* of the World give the following Names to the *Priests*, viz. The *Romans* call theirs *Flamines*; the ancient *Britons* theirs *Druids*; the *Indians* theirs *Brachmans*; the *Mogul's Indians* theirs *Daroes* or *Harbods*; the *Persians* theirs *Sedre*; the *Tartarians* theirs *Lama*; the *Moroccos* theirs *Alfaquis*; and the *Canada West-Indians* theirs *Pawwaws*; the *Chinese* and *Japonese* call theirs *Bouzes*.

IN

IN *Sacrifices*, the Beasts offer'd to the *Celestial Gods* were *white*, and those to the *Infernal* ones *black* : To *Jupiter* they sacrificed a *white Ox* ; to *Neptune, Mars, and Apollo*, a Bull, Ram, and Boar ; to *Ceres* they offer'd Milk, Honey, and the *Sow Pig* ; to *Æsculapius* Goats and Poultry ; to the *Lares* a Cock ; to the *Sun* and *Mars* an Horse ; to *Juno* a She Lamb ; to *Venus* a Dove or Pigeon ; to *Diana* a Crow ; to *Pan* and *Minerva* She Goats ; and Kids to the *Fauns*.

OF *Beasts*, the Lamb was sacred to *Juno* ; Lions to *Vulcan* ; the Hind to *Hercules* ; the Wolf to *Apollo* ; the Horse to *Mars* ; the Calf to *Isis* ; Dogs to the *Lares* ; Serpents to *Æsculapius* ; the Grasshopper to *Apollo* ; the Dragon to *Minerva, Bacchus, &c.* Among the *Birds*, the Hawk was sacred to *Apollo* ; the Eagle to *Jove* ; the Goose to *Juno* ; the Dove to *Venus* ; the Crow to *Apollo* ; the Cock to *Æsculapius, Minerva* and *Mars* ; Owls to *Minerva* ; the Vultur to *Mars* ; the Phoenix to the *Sun*. Among the *Trees*, the Fir was sacred to *Bacchus* ; the Cypress to *Pluto* ; the Cedar to the *Furies* ; the Ash to *Mars* ; the Oak to *Jove* ; the Laurel to *Apollo* ; the Myrtle to *Venus* ; the Olive to *Minerva* ; the Poplar to *Hercules* ; the Pine to *Cybele* ; the Rose to *Venus* ; the Vine to *Bacchus, &c.*



Of MYTHOLOGY; or, The
EXPLANATION of the FABULOUS
HISTORIES of the HEATHEN
GODS and HEROES.

Mythology,
what.



MYTHOLOGY is the Interpretation of the Fabulous Stories concerning the Pagan Deities, Heroes, Monsters, &c. according to the Historical, Moral, and Philosophical Meaning and Signification of each, couch'd under and disguised by Poetic Fiction and Romantic Circumstances of various sorts.

The Origin of
Heathen Fa-
bles from the
Scriptures.

Chaos.

MOST of these Fables and fictitious Relations took their Rise from the sacred Scriptures of the Old Testament ; as plainly appears from Hesiod's Theogony or Genealogy of the Gods, and Ovid's Metamorphoses. For Hesiod deduces the Pedigree of all his fabulous Deities originally from Chaos, which he makes the First of all the Gods : Thus Moses derives the World with all its Beauties and Glory from an original Chaos, or a confused and undigested Heap of Matter ; which he says was without Form and void.

The Analogy
between
Moses's Hi-
story and He-
siod's Fiction,
in his Theo-
gony.

HESIOD tells us, that immediately after Chaos, appear'd Tellus, Tartarus and Amor ; by Tellus he meant the Earth, by Tartarus the unseen Abyss in or under the Earth, and by Amor the lovely Beauty and Harmony of the World. Agreeably to this Moses, after he mentions the Chaotic State of the Earth, speaks of the Face of the Deep or Abyss, and then the regular Disposition and beautiful Order of the World by the divine Wisdom and Power of the Creator ensued ; in which Things there is an evident Analogy between them.

AGAIN,

AGAIN, *Hesiod* tells us, that *Chaos* brought forth *Erebus* and *Nox*, that is, *Gloominess* and *Night*: And *Moses* says, that while the Earth was in the *Chaos*, a gloomy *Darkness* overspread it, and all was *Night*; for there was no *Light*. Again *Hesiod* says, from *Nox*, or *Night*, sprang *Æther* and *Hemera*, that is, *Air* and the *Day*; and that they were produced, when *Amor* and *Erebus* were mix'd together; that is, when *Light* was divided from the *Darkness*, and both together made one *Day*. All which exactly answers *Moses's* Account of the Creation of the *Firmament*, the *Day* and the *Night*.

HESIOD farther tells us, that *Tellus* begat *Cæ-* lum, every way equal to itself, and beset with *Stars*, and which cover'd the whole Earth, and was the Seat of the *blest* Gods. That is, in *Moses's* Words, God made and call'd the *Dry Land Earth* (*Tellus*,) and the *Firmament* he call'd *Heaven* (*Cælum*,) in which are the *Stars*, which he made also. He farther tells, that the Earth (*Tellus*,) begat *high Mountains* and *delightful Caves* of the *Goddeesses Nymphs*; as also *Pelagus* and *Pontus* (*Seas*;) agreeable to the *Mosaic* Account of the *Dry Land*, and the *Seas*. Then he relates the Birth of *Oceanus* (the *Ocean*,) and a vast *Progeny* of other *Deities*, amongst which was *Saturnus*, from the *Embraces* of *Tellus* and *Cælum*, or the *Energy* and prolific Influences of the *Earth* and the *Heavens*; and by this Means he fills the World as full of *terrestrial, celestial, and marine Gods, Goddeesses, Nymphs, &c.* as *Moses* had done with *Men, Beasts, Fowls* and *Fishes*: So that 'tis to me evident, that the beginning of *Hesiod's Theogony* is no other than a *Poetical Imitation* of *Moses's Cosmogony*, or *Creation* of the World.

Hesiod's Theogony a Poetical Imitation of Moses's Cosmogony or Creation of the World.

THE Fable of *Saturn*, as before related, may be interpreted, (1.) In a *Philosophical Sense*: For by *Saturn* is meant *Time*; *Saturn* in Greek is call'd *Cronos*, and *Time Chronos*; the Difference is but one Letter. *Saturn* devour'd his Children, so *Time* devours and consumes all Things it has produced: Or else, the Years, Months and Days are the Children of *Time*, which he devours and again produces anew. Lastly, *Saturn* had his *Scythe*, so has *Time* wherewith he mows down all Things; and *Saturn's* *Serpent* biting his *Tail*

The Fable of Saturn explain'd. The Philosophical Sense.

is a proper Emblem of the *endless Circulation of Years, Ages, and other Periods of Time.*

The Historical Sense; Saturn is Noah.

Secondly, *Saturn* in an *Historical Sense*, is *Noah*: For 'tis said in his Time there was but *one Language*, which was common to Men and Beasts; so in *Noah's Days* the whole Earth spake but *one Tongue*. *Saturn's Wife* was *Tellus*, or *Rhea*, or *Ops*, all which signify the *Earth*: And *Noah*, in the *Original Hebrew*, is said to be a *Man of the Earth*, or an *Husbandman*. *Saturn* is said to have found the Art of cultivating *Vines and Fields*, and by Scripture we find *Noah* the first Planter of *Vineyards*. Again, *Noah* was overcome with Wine, so *Saturn* protected *drunken Men*. *Noah* cursed *Ham* for seeing his *Nakedness* and not hiding it; so *Saturn* made a Law to punish those who should look on the *Gods naked*. *Noah* and *Saturn* both foretold a Flood, and the Building an Ark, &c. *Saturn* devour'd all his Sons but three; so *Noah* left all the old World behind him, dead and devour'd as it were, whilst he with his three Sons escaped with Life; with many other *parallel Cases*.

The Golden, Silver, Brazen and Iron Ages moralized.

In *Saturn's Reign* was the *Golden Age*, which the Poets magnify the Happiness of to that Degree, that they would persuade us the Earth *spontaneously* brought forth its Fruits without Man's Labour; that all things were common to all; that there were no Quarrels nor Contentions among any; but that all the Earth enjoy'd a perfect Scene of uninterrupted *Ease, Peace, Saturity and Delight*. The Moral of which is, that in the pristine State of the World, Men's Reason, Natures, and Manners were more perfect, and conformable to the Rules of Justice and Equity; and according as this their original Moral Rectitude declined, and gradually became deprav'd and corrupted in subsequent Ages, so the Poets on that score made the *Silver*, the *Brazen*, and the *Iron Age* to succeed in order; and thereby beautifully represented the fatal Gradation from primæval Virtue to modern Vice. 'Tis supposed this excellent Fiction took its Rise from *Nebuchadnezzar's Dream*.

The Historical Meaning of Jupiter, Pluto, and Neptune.

JUPITER, according to *Historians*, was King of *Crete*; and having deposed his Father, afterwards divided the Kingdom by Lot with his two Brothers *Neptune* and *Pluto*; and because the *Eastern Part* fell

to

to *Jupiter*, the *Western* to *Pluto*, and the *Maritime* to *Neptune*, from thence they took Occasion to feign, that *Jupiter* was *King* and *God of Heaven*, the Sun first rising on his Dominions; that *Pluto* was the Sovereign of *Hell*, because the Sun going beneath his Territories, left the Earth in *Gloomy Darknefs*; *Neptune* also must needs be *God of the Seas*, whose *Jurisdiction* lay bordering upon them. Again, in a *Philosophical Sense*, *Jupiter* is taken for the *Air* and *Heaven*, and therefore commands the *Thunder*, *Lightning*, &c. Some by *Jupiter* understand *Fate*, the *Stoical Cause* of all Things. Others say by *Jupiter* is meant the *Soul of the World*, or that *Principle* which actuates the World, and renders it prolific and productive of all Things.

The Philosophical Meaning of Jupiter.

By *Apollo* is meant the *Sun*, as is evident, since he was the *God of Prophecy* and *Divination*, as the Sun by his *luminous Beams* dispels *Darknefs*, and brings conceal'd and hidden Things to *Light*. *Apollo* presided over the *Art of Medicine*; thus the Sun by its salutary and balmy Rays gives *Natural Life* to all Things, and causes the *Plants* and *Herbs* to grow for the Purposes of *Health* and *Medicine*. *Apollo's Darts* are an apt Emblem of *radiating Beams of Light*, which the Sun as it were darts or shoots upon the Body of the Earth. Lastly, *Apollo* presided over *Music*; and is not the Sun the true Cause of the Harmony of the *Spheres*? And does not his *Harp of seven Strings* represent the *seven planetary Orbs*, wherein they dance about the *Sun perpetually*?

The Fable of Apollo explain'd of the Sun.

By *Mercury* is meant the *Faculty of Eloquence*, or Use of Speech; his Name in *Greek* (*Hermes*), being composed of two Words, signifying to *speake*. Hence he is call'd the *Nuncio* of the Gods, because by Speech we are able to communicate our Thoughts to others, and make our *Words* the *Messengers* of our Minds. *Mercury* was allow'd *Wings*; so our Words fly swiftly through the Air: He held a *Golden Wand*, to shew the Excellency of seasonable and friendly *Admonition*; he was the *Interpreter* of the Gods, as *Words* and *Language* are of our Minds to one another: He was the *God of Merchandise*, since all Commerce is transacted by means of the *social Faculty* of Speech. He conducted the Souls of the Dead to the Shades below, ei-

The Fable of Mercury moraliz'd; Mercury means Eloquence.

ther to *Hell* or the *Elysian Fields*; which shews how much a Man's future State depends upon the Nature and Tenor of our Speech and Discourse: Thus our Lord says, *By thy Words thou shalt be justified, and by thy Words thou shalt be condemn'd.* He stole *Vulcan's* Tools, *Venus's* Girdle, and attempted *Jupiter's* Thunder; all which shew the thievish Power of Eloquence, which steals from us our very Senses, and disarms us of our Reason in the *Attacks* of Love and Sophistry.

By Mars is meant War.

THE Fable of *Mars* holds forth the Nature of *War*: His *Countenance* and *Actions* before related are all correspondent thereto; and all so easy to be interpreted and apply'd, that the Fable itself is its own *Mythologist*.

Bacchus is Nimrod, or Moses.

The Moral of his Fable.

BACCHUS is said by some to represent *Nimrod*, by others *Moses*; there being many Circumstances in which he may be thought to resemble both, too tedious here to enumerate. But as to the *Moral Sense*, 'tis obvious *Bacchus* means Wine among the *Poets*. Thus *Jupiter* is said to bear *Bacchus* in his *Thigh*, and thereby to go limping; which shews how we reel to and fro, and stagger through the *Influence* of too much Wine. *Bacchus* is always a Boy, so the *oldest Men* when drunk are as silly as Children. *Bacchus* is naked; and does not Wine *divest Men* of their Reason, and make them lay open all the Secrets of their Minds and Bodies too? *Bacchus* has *Horns*; and how many does Wine occasion to be crown'd with those *Ensigns* of *Cuckoldom*? *Bacchus* was *inflam'd* with the Love of *Venus* and *Ariadne*; thus Wine is a never-failing Provocative to *Venery* and *Debauchery*; besides abundance of other parallel Cases.

By Juno is meant the Air.

By *Juno*, the Consort of *Jove*, is meant the *Air*: She was both Sister and Wife to *Jupiter*; so the Air was produced at the same Time as the Sky, and was closely conjoin'd therewith. And by the Commixture of the *Influences* of the *Heavens*, and the *Vapours* of the *Earth* in the Air, they supposed all Things almost were produced, according as the most numerous *Issue* of *Gods* and *Goddesses* sprang from the *Embraces* of *Jove* and *Juno*.

Minerva is the Symbol of Wisdom and Virtue.

MINEERVA is supposed by some to personate *Eve* in the Mask of *Fable*; but be that as it will, 'tis certain she was the *Symbol* of *Wisdom* and *Chastity*:
For

For *Minerva* was born of *Jupiter's Brain*; thus true *Wisdom* is the Offspring of Heaven, and *Chastity* the most heavenly and godlike Virtue. She was born armed; so a wise Man's Soul is arm'd with *Wisdom* and *Virtue*, and is thereby render'd invincible: She was always a *Virgin*, as the wise and virtuous Person is often represented as cloathed with *Virgin Innocence* and *Purity*. *Minerva* has a severe and stern Countenance; for nothing renders a Man more awful and truly great and noble, than Sagacity, Prudence, and a blooming Virtue: She was the Inventress of many noble and useful Arts; and truly most Arts and Sciences have owed their Original to *Wisdom* and *Learning*. *Minerva's Spindle* and *Distaff* teach an excellent Lesson of *Industry* to every virtuous and discreet Woman. When *Tiresias* saw *Minerva* naked, he lost his Sight indeed, but became a Prophet instantly; shewing that *Wisdom* and *Virtue* infinitely recompense all the *Labour*, *Hardships* and *Damage* we sustain in acquiring them. The Owl was sacred to *Minerva*, to shew that a wise Man can see where others are stark blind. *Minerva* bore in her Shield the shocking Head of *Medusa*, to intimate nothing is more formidable than the Weapons of *Wisdom* and *Virtue*, even in martial Affairs.

THAT *Venus* is the Emblem of *Love* is well known; *The Fable of* the Manner of her Birth declares her to be carnal Lust; *Venus moralized.* her Companions shew the wanton Dispositions of amorous Persons, and their strange Propensities to obscene Pleasures. She presides over Beauty, which is the great Fomenter of impure Desires and unchaste Love. *Venus* rides in a Chariot, and no Wonder; for who rules with more imperious Sway, and leads more Captives in Triumph, than the Passion Lust? She wears a Crown, as being always victorious. She carried a Looking-glass, to shew her the Frailty of her Beauty by the Brittleness of the Glass. She was born from the Sea, to shew the turbulent and restless State of Lovers. She was Wife to *Vulcan*; nothing being a more constant Associate of impure and unlawful Amours, than a dark Deformity of Mind. She play'd the Whore, was caught in Chains of Iron, and exposed naked in the Embrace of her Lover to the Contempt of the Gods; and what is more common than for a Debauchée

Debauchée to walk in the *Iron Fetters* of a *guilty Conscience*, and be exposed to the *Contempt* and *Derision* of all?

Aurora, the Dawn of the Morn.

By *Aurora*, the Poets understood no more than the *Dawn* of the *Morning*, which spreads a diffusive *Lustre* over all the *Orient Skies*, and paints the *Clouds*, on which she rides, with all their *Golden Glory*, so beauteous to behold in *Summer-time*.

The Historical Sense of Vulcan is Tubal-Cain.

VULCAN is only a *Corruption* of *Tubal-Cain*, by an *Aphæresis* of the first Syllable *Tu*; for then it will be *Bal-Cain*; but the *Eastern* People pronounce *B* very often like *V*, which in this Case makes *Valcain*, from whence *Vulcan* easily flows. Moreover, *Vulcan* was a *Blacksmith* and the *God of Fire*; and *Tubal-Cain* was the first *Artificer* in *Brass* and *Iron* we read of; and of consequence they were the same

In a Philosophical Sense, Fire.

Person. Secondly, in a *Philosophical Sense*, *Vulcan* is *Fire*; thus *Vulcan* is *Lame*, because *Fire* cannot be supported without *Fuel*. He was cast down from *Heaven*, because the *Lightning* is darted thence; and said to fall on the *Island Lemnos*, because it is remarkably subject to *Lightning*. Thirdly, *Vulcan* in a *Moral Sense* is the *Flame of Love*; he was the *Husband* of *Venus*; and whoever give themselves up to her, she seldom fails to make them *Vulcans*, as filthy, nasty, and deform'd as he, as black as *Hell*. Every effeminate Man is a *Vulcan*, a *Blacksmith*, who with his (*Cyclops*,) deform'd and sightless *Passions*, is always toiling at the *burning Forge of Lust*, and making *Thunder-bolts*, which at last will fall on his own *Head*.

The Fable of Æolus explained.

By *Æolus* you are to understand an antient *King* of the *Æolian Islands*, who studied *Astronomy* and *Philosophy*, and particularly the *Nature* of the *Winds*, so that he could tell what *Times* and how long such *Winds* and *Tempests* would be, and when it would be *calm*; in which kind of *Skill* he was the more perfected by the *Clouds*, *Mists*, and *Smoke* of these *Islands*, which always presaged great *Store* of *Winds*, so that it was generally believed they were under his *Power*, and that he could raise and calm them at his *Pleasure*.

Janus an antient King of Italy; and an

JANUS was a perfect *Emblem* of *Prudence*. He was the most antient *King* of *Italy*, among the *Aborigines*, and receiv'd *Saturn* when his Son *Jupiter* banish'd

nish'd him from *Crete*, and gave him Part of his *Kingdom*. *Saturn* taught him *Husbandry*, and *Coining Money*; and in short his *Knowledge* and *Skill* was such, that he was reckon'd the wisest of all *Kings*, and knew *Things* past and future; therefore he was rever'd; and painted with *two Faces*, as all prudent Men, in a Sense, ought to have: For *Prudence* consisteth mainly in a *Remembrance of Things past*, and in the *Fore-sight of Things to come*. *Janus* holds in his Hand a *Key*; so a prudent Person may be said to have the *Key* of *Knowledge*, and to unlock many *Doubts*, *Mysteries*, and *Intricacies* which puzzle and obstruct others in the *Affairs* and various *Exigencies* of *Life*. *Janus's Altars* and *Incense* shew that the *Honour* and *Adoration* of the *Almighty* is the Effect of *Prudence* and *Understanding*; and that *Fools* only say *there is no God*, and worship none.

VESTA is the same with *Fire*; as is evident from various Expressions in the Poets: But it is rather supposed by *Vesta* is understood the *Vital Flame* or *Heat* of the *Body*, which is the first Principle of *Animal Nature*. The *Vestal Fire* was perpetual; so is the *Native Heat* of *Bodies*, which constantly warms and actuates the whole. The *Vestal Virgins*, if they neglected this *Fire*, and let it go out, were grievously punished, and buried alive. We are those *Vestal Virgins*, who, if we neglect to nourish and keep up the *Vital Flame* of our *Bodies* to its due *Tenor*, or corrupt and weaken the same by *Debauchery* and ill Courses, divers *Diseases* will excruciate and torture us; we stab our *Reputations* and bury them in *Ignominy* and *Reproach*, whilst we live; and the *Flame* becoming extinct, our *Memories* are interred with our *Carcasses*, and rot with them in the *Grave*.

By *Ceres* is to be understood that genial prolific Principle in the *Earth*, which is the Cause of *Vegetation*, or of the *Production* and *Nourishment* of *Herbs*, *Corn*, *Fruits* and *Trees*. *Ceres* is beautiful and well-shaped, so is the *Earth* array'd in all the *Gaiety* of *vernal Verdure* and *flowery Pride*. *Ceres* was born of *Saturn* and *Ops*; that is, of *Husbandry* and the fertile *Soil*; so is *Corn*: She wore yellow *Hair*; and the *Ears* of *Corn*, when ripe, are adorn'd with that *Golden Colour*: She was crown'd with the *Ears* of *Corn*, so

Emblem of
Prudence.

*Vesta means
Fire, and the
natural Heat
of the Body.*

*The Fable of
Ceres ex-
plain'd Philo-
sophically and
Morally.*

is the Earth in Harvest. *Erisichthon* contemn'd the Sacrifices of *Ceres*, defiled her Groves, &c. for which she punish'd him with perpetual Hunger. This shews how every (*Erisichthon*,) idle Person, who hates Industry, should be punish'd with Hunger, and cloath'd with Rags. *Ceres* once absconded herself, and in her Absence a general Corruption of the Corn and Fruits ensued, and from thence sprang a great Infection among all Beasts and Cattle; the Moral of which is too easy to need explaining.

The Philosophical Signification of the God Pan.

By the Image of the God *Pan* the Poets understood the Universe, for the Word *Pan* in Greek signifies all; his upper Part resembled a Man, his lower Parts a Beast; because Men and Beasts make the most considerable Part of the World, and the former much the superior. His red Face represents the blushing Splendor of the Skies; his Horns those of the Moon; his spotted Skin, the party-colour'd Firmament, or the starry Sky; his hairy shagged Thighs and Legs, the Shrubs and Trees of the Earth; his Goat's Feet, the Stability of the Earth; and his Pipe of seven Reeds, the celestial Harmony of the seven planetary Spheres.

By Diana is meant the Moon.

DIANA represents the Moon; therefore she appears horned. *Diana* is said to have three Countenances; so has the Moon her three Phases of New, Quarter, and Full. *Diana* is said to be a great Huntress, because the Moon is constantly journeying round the Earth, and darting her Rays thereon. She was a Virgin, because the Moon is One, and has no Associate. 'Tis said she had a Gallant, nam'd *Endymion*, whom she so loved, as to descend out of Heaven to kiss him; which Fable implies no more than that *Endymion* was a great Astronomer, and first describ'd the Course of the Moon. Again,

The Fable of Endymion explain'd.

The Fable of Actæon moralized.

As *Actæon* was hunting one Day, he chanced to spy *Diana* bathing herself in a Fountain; and because he dar'd to behold the Goddess naked, she turn'd him into a Stag, whom his own Hounds pursued, and devour'd him. By which Fable is intimated, that those who spend their Time in over curious Researches into the Nature of secret Things, are justly made a Prey to their idle and impious Humours, and generally beggar and undo themselves.

By the Fables of the *Sirens, Circe, Charybdis* and *Scylla*, is represented to us the ensnaring Nature of Pleasures, *Voluptuousness, Lust, and Gluttony*. The *Sirens* are the vain deceitful *Pleasures*, which as it were sing and sooth us to *sleep*, to a State of *senseless Stupidity*, and then never fail to devour us. *Circe* was that terrible *Witch* who it is said drew down the *Stars* from Heaven, and by her *Sorceries* turn'd all her *Visitants* into *Hogs, Dogs, Bears, Wolves*, and such like *Beasts*; and doth not *Voluptuousness*, by a kind of *Sorcery*, so infatuate Men and change their Natures into a *swinish, cynical, and bestial Disposition*, that they rather resemble *Brutes* than Men? And even those who by their *Wit, Learning and Virtue* too, have shone like the *Stars* in the *Firmament*, have fallen too often from their *Glory*, by the *enchanting Power of sensual and obscene Pleasure*: None being sufficiently guarded against her, but (*Ulysses*) a *virtuous, pious, and valiant Man*, who scorns the *sordid Pleasures of a sensual Life*. Again, *Scylla* is *Lust*, the *fatal Rock* on which so many have shipwreck'd their *Honesty, Honour, and Fortunes*. *Charybdis* is the horrible *Whirlpool of Gluttony*, the *insatiable Gulph*, which hath drawn down *Families alive*, devour'd whole *Estates*, and *sucks down* all Things into an *Abyss of Destruction*.

The Moral of the Fable of the Sirens.

Of Circe, the Sorceress.

Of Scylla;

and of Charybdis.

PLUTUS, or *MAMMON*, as being the God of *Riches*, hath his *Palace* in *Hell*, and no Place more fitting; for, can any one serve the true God and *Mammon*? Is not *Wealth* the *Root of all Evil*? Can there be any more ready Way to *Hell* than to hunt after *Riches*? *Plutus* is said to be *lame*: Ah! how do rich Men limp when they go to give *Alms*, how slow their *Motion*! What dismal *Grimaces* attend their *Acts of Charity*! *Plutus* was *blind*; and what rich Man can see the *Wants* of his poor *Neighbours*? How pur-blind are they to *Merit*! and how few rich Men can see any *Folly or Defects* in themselves! *Plutus* was very *Injudicious*; the *Picture of a Rich Man*! who passeth by *good Men*, and heaps his *Favours* on the *Bad and Undeserving*. *Plutus* was *timorous*, so are all *Rich Men*; they are continually in a *Panic*, and watch their *Treasures* with the utmost *Care* and *Fear*.

The Fable of Plutus moralized.

*The Fable of
the Centaurs
explain'd.*

THE Centaurs were antient People of *Thessaly* near *Mount Pelion*, who first broke Horses for *War*; the ignorant Country People seeing them at a Distance on *Horseback*, supposed they were (both Horse and Man) but one *Creature*; whence the Fable before-mentioned.

*As also that
of Geryon.*

THE Fable of the Monster *Geryon's* having three Bodies, is thus to be understood: *Geryon* was, in antient Times, a King of the three *Spanish Islands* call'd *Balearides*: Or else thus; from the *Unity* there was between the *three Brethren* of that Name, who ruled so lovingly together, that they *all three* seem'd to have but *one Soul*.

*Harpies,
Gorgons, &c.
moralized.*

By the *Hellish Monsters Harpies* and *Gorgons*, &c. are to be understood the *black and devillish Arts* and *Practices* of *Lewd and Vicious Women*; who having cast off all *Shame, Modesty, and Grace*, appear in their *Affections, Passions, and Actions* as monstrous and deform'd as the *infernal Inhabitants* now mention'd.

*The Fiction of
the Chimæra
explain'd.*

THE *Chimæra* is a *Fiction* deriv'd from a *Volcano* or *Mountain* of *Lycia* which casts out *Fire*: For on the *Top* thereof *Lions* harbour'd; *Goats* in and about the *Middle*, where there was much *Pasture*, and the bottom thereof abounded with *Serpents*; and because *Bellerophon* made this *Mountain* habitable, he was said to slay the *Chimæra*.

*Tantalus the
Emblem of a
Miser.*

TANTALUS was design'd to represent a *Miser*; for like him they live in the midst of *Plenty*, but enjoy it not. 'Tis peculiar to them to starve in a continual *Feast*; to famish amidst full *Barrels*, and to freeze by the *Fire-side*.

*The Story of
Orpheus and
Amphion mo-
ralized.*

ORPHEUS and AMPHION are said to be so very skilful in *Music*, that the first play'd on his *Harp* and sung so sweetly, that he tamed *wild Beasts*, stay'd the *Course* of *Rivers*, and made the *Woods* follow him; and that by the *Melody* of the latter, the *Stones* moved so regularly, that they form'd the *Wall* of the *City* of *Thebes*. The *Moral* of all which is this, That *Orpheus* and *Amphion* were both Men so *eloquent*, that they persuaded those who lived *savage Lives*, like the *wild Beasts*, before, to embrace the *Rules* and *Manners* of *Civil Society*.

*The Fiction of
Atlas, whence.*

ATLAS is said by the *Poets* to have born the *World* on his *Shoulders*; which *Fiction* arose hence, that

that *Atlas*, an antient King of *Mauritania* in *Africa*, first invented the Science of *Astronomy*, and reduced the Motions of the Heavenly Bodies to some Degree of *Certainty* and *Regularity*, which were all before unknown.

HESPERUS was the Brother of *Atlas*, who also studied *Astronomy*, and frequently went up Mount *Atlas* (so nam'd of his Brother) to view the Stars: At last he went up and came down no more; at this the People imagin'd that he was carried to Heaven, and became the *Evening* and *Morning* Star, call'd *Hesperus* (or *Vesper*) and *Phosphorus*, or *Lucifer*. *The Fable of Hesperus.*

THE *Hesperides* were three Daughters of *Hesperus*, by Name *Ægle*, *Arethusa*, *Hesperethusa*; and 'tis said in their *Gardens* Trees were planted which bore *Golden Fruit*; these Trees were guarded by a watchful *Dragon*, which at last *Hercules* kill'd and carried away the *Golden Apples*. The Ground of this Fable is supposed to be the *Garden of Eden*, and the forbidden *Tree of Knowledge*, and *Tree of Life*, the Trees which bare the *Golden Fruit*. *The Gardens of the Hesperides the same with the Garden of Eden.*

PROMETHEUS, the Son of *Iapetus*, is said to have made a Man of Clay or Earth, and afterwards to steal Fire from Heaven, in order therewith to put Life and Soul into his Man; this Theft so displeas'd *Jupiter* that he sent *Pandora* into the World to *Prometheus* with a Box, from which, when open'd by her Husband *Epimetheus*, there flew out all Sorts of *Evils* and *Diseases* which have pester'd Mankind ever since. And afterwards *Prometheus* was chain'd to Mount *Caucasus*, and an Eagle perpetually prey'd on his Liver, as a farther Punishment of his Impiety. As to the *Moral* of all this, I think his making a Man of Clay may allude to the Creation of *Adam* out of the *Dust of the Earth*: And that *Pandora* (who also was made by *Vulcan* at *Jupiter's* Command, and whom every Deity adorn'd with various Gifts, *Minerva* giving her Wisdom, *Venus* Beauty, *Apollo* Music, *Mercury* Eloquence, &c. I say this *Pandora*) was *Eve*, who, to be sure, before the Fall possess'd all the Heavenly Graces and Endowments possible, but by her Transgression (the *Fatal Box*) she open'd the Way for all the subsequent *Evils* and *Mischiefs* in the World. *The Fiction of Prometheus and Pandora applied to the Creation of Adam and Eve, and the Fall of Man.*

Deucalion's
Deluge was
Noah's Flood.

DEUCALION (the Son of *Prometheus*) and his Wife *Pyrrha* are said to reign in *Theffaly* when a *Deluge* happen'd so great that it overflow'd the Earth, and destroyed all Mankind, excepting only *Deucalion* and his Wife *Pyrrha*, who were carried in a little Ship upon Mount *Parnassus*; and when the Waters abated, they consulted the Oracle of *Themis*, to know how Mankind might be again restored; the Answer was, *They should cast the Bones of their Great mother behind them*, (i. e. the *Stones of the Earth*;) accordingly they did so, and from these Stones sprang a *New Race of Men and Women*. All which, 'tis very evident, is but a *Poetical Metamorphosis of Noah's Flood*, and some of its most considerable *Circumstances*.

Iphigenia is
Jeptha's
Daughter.

IPHIGENIA was the Daughter of *Agamemnon* and *Clytemnestra*; her Father by chance kill'd a Stag of *Diana's*, who in Revenge stopt the Passage of his Fleet with contrary Winds, and the Oracle told them, that *Diana* would not be pleas'd, unless some of *Agamemnon's* Blood were sacrificed. Whereupon *Ulysses* got *Iphigenia* from her Mother by *Craft*; but as she stood by the Altar at *Aulis*, ready to be sacrificed, *Diana* pitied her, and put a Hind in her stead; and made her one of her *Priestesses*, who solemnized her Sacrifices with *human Blood*. And now how plainly does this appear to be the Scripture-History of *Jeptha's* Daughter, under the *Disguise of Poetical Fiction*, and some fabulous Accommodations.

The Fable of
Phaeton vari-
ously applied.

PHAETON was the Son of *Sol* and *Clymene*; he requested of his Father *Phœbus* to drive the Chariot of the *Sun* for one Day: He granted it, but warn'd him of the *Danger* thereof: *Phaeton*, careless of any future Event, mounts the Chariot, the *Fiery Horses* drove furiously through the Heavens, and their Driver not able to govern them, let the Reins go, and had like to have set the whole World on Fire; to prevent which *Jupiter* struck him with a *Thunderbolt*, so that he fell into the River *Eridanus*, now call'd the *Po*. His Sisters were turn'd into *Poplar Trees*, and wept for him with Tears of Amber on the same River's Banks. Some think this *Phaeton* was *Phut* the third Son of *Cham*, who was skill'd in *Astronomy*, and therefore call'd the Son of *Sol*; and that he foretold the great Conflagrations in *Italy* and *Ethiopia*, which happen'd

To Phut Son
of Cham.

pen'd *Anno Mundi* 2426. Others say, this Fable had its Origin from the History of *Elijah*, who was taken up into Heaven in a *Chariot* and *Horses of Fire*. Others think it refers to the Destruction of *Sodom*, *Gomorrhah*, &c. by *Fire* and *Brimstone* rain'd from Heaven. And lastly, 'tis suppos'd the Moral is le- vell'd at ambitious and inconsiderate *Princes*, and *Prime Ministers*, who, uncapable of the high and weighty Charge they have taken on them, let loose the Reins of their indiscrete Government, and thus set the Subjects all in a *Combustion*, and endanger their own *Downfal*. Such a *Phaeton* fell upon the River *Thames*, and set *England* in *Flames*, not an Age since.

To *Elijah*.

To the Burn-
ing of *Sodom*,
&c.

The Moral
thereof.

NISUS was a King of the *Megarenfes*, and had a *Purple-colour'd* or *Golden Lock* of Hair among the rest on his Head; on this *Lock of Hair* the Fortune of his Kingdom depended. His Daughter *Scylla* fell in Love with *Minos*, who besieged her Father in *Megara*; and cutting off her Father's *Golden Lock*, she gave it to *Minos*, and with it the Kingdom; where- upon *Nisus* died with Grief, and was turn'd into an *Hawk*, and his Daughter into a *Lark*. Whence the *Antipathy* between these two Birds ever since. The whole of this Fable is undoubtedly grounded on the *Scripture Relation* of *Sampson* and his Mistress *Delilah*; with a little Variation allowable to the Poets.

The Fable of
Nisus and his
Daughter, the
same with
Sampson and
Delilah.

NARCISSE was feign'd to be the Son of the River *Cephissus* and the Nymph *Liriope*. *Tiresias* being asked concerning the Child's Fortune at his Birth, answer'd, He should live so long as he did not see himself. He proved so beautiful a Youth that several Nymphs fell in Love with him, but he slighted them all. Afterwards seeing his own Face in a Spring, he so fell in Love with himself, that he pin'd away, and dying was chang'd into a Flower of his *Latin Name*, the *Daffodilly*. By *Narcissus* is meant the Proud and Scornful Person, who despiseth every body, especially (Nymphs) modest, sincere, and humble Persons; and is so full of *Philauty*, *Self-love*, *Self-conceit*, that he is enamour'd with his own Shadow; but never fails to die in the Esteem of all wise Men, who look on him only as a gaudy, showy Trifle, a mere *Daffodilly*.

The Fable of
Narcissus ma-
ralized.

The Emblem
of a Proud
and Scornful
Man.

H 'Tis

Midas the
Emblem of a
presumptuous,
indiscrete, and
covetous Man.

'TIS storied of *Midas* (a rich King of *Phrygia*) that he requested of *Bacchus*, his Guest, that all he touch'd might be *Gold* ; 'twas granted, and he soon turn'd his Houses and whole Mountains into *Gold* ; and touching his *Viſuals* and *Drink*, he turn'd that into *Gold* too. And now ſeeing his *Folly*, he deſired to have his Wiſh revok'd, and he was bid to waſh himſelf in the River *Pactolus*, whereupon he became the ſame as he was before, but the River to this Day produces *Golden Sand*. By this Fable is very pertinently ſet forth the *Folly* of Man, in depending upon his own *Wiſdom* and *Sufficiency*, and ſetting light by the *Divine Providence* and *Aſſiſtance*. For, if we were left to ourſelves, we ſhould (*Midas* like) be craving the Things which would be moſt *pernicious*, and ſoon bring us to repent thereof. From hence too we learn, that God very often brings Men to a Sight of their *Folly*, and to admire his *Wiſdom* and *Goodneſs*, by permitting them the *Experience* of their own *Choice* a while.

Momus, the
Mythologic
Character of
a Carping
Critic.

MOMUS is the laſt *Mythologic* Character I ſhall conſider the Moral of : His Story has been related, where we find indeed that he was reckon'd a *Deity*, but was dignified with no other Epithet than that of the *Carping God*. He was ſaid to be the Son of *Night* and *Sleep*, becauſe of his dull and gloomy Mind, which render'd him very imprudent, injudicious, and conſequently unfit for a *Judge* or *Critic*. He was call'd *Stygian Momus*, becauſe he was hated by the Gods and Men. He did nothing himſelf, but ſpent all his Time in *reprehending*, *cavilling* with, and *depreciating* the Works and Labours of the Gods and Men. From all which Characters, the Moral of *Momus* eaſily diſplays itſelf in the Perſon of an *ill-natur'd, ignorant, envious, carping Critic* ; who, as he is generally too idle and deficient in his Intellects to do any thing of Merit himſelf, ſo he (ambitious notwithstanding) has no other Way to diſtinguiſh himſelf, and ſeem conſiderable, but by deſaming, calumniating, and undervaluing the Works and Perſons of other Men. He is conſcious of his own *Imbecillity* and *Incapacity* to merit Praise and genuine Honour ; and envying others the Happineſs, he does all he can to deprive them of it, and make the World believe they deſerve

deserve it not. But how *stupid* and *vain*, as well as proud and envious, must such a Wretch as *Momus* be, to think that a Man's Character for Learning and Merit is to be estimated and determined by his ungenerous, ignorant and malicious Verdict! Does not this great Affair depend on the Judgment of the *Wise* and *Prudent*, who are well acquainted with the Imperfections of human Nature, and are therefore to be reputed the *only equitable Judges* of the Merit of human Productions? Such will make a generous and reasonable Allowance for Frailties and Defects, where the Cause and Design is good and honourable.





*Of LANGUAGE in general ;
of GRAMMAR in general ;
and particularly that of the ENG-
LISH TONGUE.*

*Language,
what.*



LANGUAGE is a Set or Collection of Sounds or Notes made use of by any Nation or People to express the *Ideas* of their *Minds*, and by this means to render their *Thoughts* and *Conceptions* intelligible to each other. The *Actual Communication* of our *Sentiments* to others in this Manner, is call'd *Speech*, or *Speaking*.

Speech.

*The component
Parts of Lan-
guage.*

THE component *Parts* of a *Language* are different *Kinds of Sounds*; of which some are *Simple*, and others variously *compounded*. The *Marks* whereby the *Simple Sounds* are expressed to the *Sight*, are called *Letters* or *Characters*; and the various *Assemblage* and *Combinations* of *Letters* make the *Expressions* of *Compound Sounds*; which again are of *divers Sorts*, as *Syllables*, *Words*, and *Phrases*; of which more by and by.

Letters.

Words, &c.

Alphabet.

IT is customary among all People to make an orderly *Arrangement* of all the *Letters* used in their *Language*, which we call by the *Greek Name Alphabet*; as also of all the *Words* and *Terms* which compose the same: And such a *Collection* or *Catalogue* of *Words* is by Us called a *Dictionary*, and for the *learned Languages*, a *Lexicon*. And the *Art* which teaches how the *Letters* and *Words* of any *Language* ought to be *set* and *combin'd* together for *proper Speech*, is what we call *Grammar*.

*Dictionary or
Lexicon.*

Grammar.

IN *Language* we are to consider two main *Things*, *Idiom of*
viz. (1.) The *Idiom*, *Phraseology*, or *Manner of Ex- Speech, what.*
pression, which is peculiar to that Nation, and differ-
 ent from what is used by any other. Thus when we
 say, * *All that came out of his Loins*, the *Hebrews* say, * *Gen. xlv.*
out of his Thigh. We say, *A Person is Ten Years old*; 26.
 the *Hebrew Idiom* is, *He is the Son of Ten Years.* We
 say, *An Husband-man*; they, *A Man of the Earth*,
 &c. (2.) The second Thing is *Dialect*, which is the *Dialect,*
 same in the main as the *Original Language*, but differs *what.*
 therefrom in the *Ending* or *Termination* of Words,
 for the most part; the *Change* of many entire Words,
 or the *Addition* or *Leaving out* proper Letters in the
Syllables of Words. So the Name *God* in the *Stan-*
dard Greek is *Theos*, but in the *Doric Dialect* it is
Seos; thus for *Glossa*, a Tongue; the *Attic Dialect*
 says *Glotta*; and thus in others.

THE Relation between the *Standard* or *Original*
Language, and the *Dialects* which proceed from it, is
 similar to that between the *Mother Parent* and her
Children; and on this Account it is, that those *Ori-*
ginal Languages are commonly call'd *Mother Tongues.*
 Of these *Parent* or *Mother Languages*, there are seven *Mother*
 in the World; some reckon *Eleven*, some count *Tongues,*
 more. Among them all, there are *Four* which de- *what.*
 serve more Notice than the rest, and they are, (1.)
 The *Hebrew*; (2.) The *Greek*; (3.) The *Latin*;
 (4.) And the *Old Gothic.* The others are less con-
 siderable.

THE *Hebrew Tongue* is the most antient in the *Of the He-*
 World, at least that are known to the *Europeans.* *brew and its*
 From it sprang a very *august* and *flourishing Progeny* of *Dialects.*
Dialects, viz. the *Chaldee*, the *Syriac*, the *Arabic*,
 the *Samaritan*, and the *Ethiopic.* The two first differ
 chiefly in the *Characters*, there being a near *Affinity*
 in the Form of the Words, and Texture of the *Tongues*
 themselves. The *Arabic* is a most copious Tongue,
 having a thousand different Words for a *Sword*, five
 hundred for a *Lion*, and two hundred for a *Serpent.*
 The chief *Properties* of these *Oriental Tongues* are, *The Properties*
 (1.) The *Primitive Words*, or the *Themes* of their *of the Eastern*
Verbs, in general, consist of but *three Letters*, and *Tongues.*
 some few of *four.* (2.) That these *Letters* are all
Consonants, as *PKD*, *BRZL*, &c. (3.) That
 H 3 the

the *Vowels* are mostly *Points* placed under the said *Consonants* in the *Theme*, as P K D, that is, PAKAD, he visited; BR Z L, that is, BAR ZEL, Iron.

(4.) That they distinguish the *Masculine* and *Feminine* *Genders* in *Verbs* as well as *Nouns*, by different *Terminations*. (5.) That the *Oriental*s write and read from the *Right Hand* to the *Left*, contrary to the *Europeans*.

Of the Greek
Language and
its several
Dialects.

THE *Greek Language* is the next *Mother Tongue*, and in the *Texture* of its *Words* is as *compound* as the *Hebrew* is *simple*; on which *Account* it obtains a wonderful *Variety* and *Copiousness* of *Words*, beyond any other *Language*. The principal *Dialects* of this *Tongue* are, (1.) The *Attic*, which was spoken at *Athens*, and the *Country* round, between *Achaia* and *Macedonia*. (2.) The *Ionic*, used in *Ionia*, a *Country* in *Lesser Asia*, between *Caria* and *Æolis*, inhabited by a *Greek Colony* in former times. (3.) *Doric*, spoken by the *Dorians*, a *People* inhabiting a *Part* of *Achaia*. (4.) *Æolic*, used by the *Æolians*, who lived in that *Part* of *Asia* between *Ionia* and *Troas*, near the *Hellepont*.

Of the Latin
Tongue, and
its Dialects.

THE *Latin* is that *Mother Tongue*, which of all others can boast the *Noblest Progeny* of *Living* and *Polite Dialects*; for she gave *Birth* to the *Italian*, the *French*, the *Spanish*, the *Portuguese*, and a good *Part* of the *English*, and is herself still in *Being*; and more universally embraced than any other ever was, or, perhaps, ever will be. To give one *Instance* of the *different Utterance* between this *great Parent* and her several *Daughters*, take that of *Royal Dignity*, which by the *Mother Tongue* herself (the *Latin*) was call'd *Majestas*; but by the *Italian*, *Maestà*; by the *Spanish*, *Magestad*; by the *French*, *Majesté*; and by the *English*, *Majesty*.

An Instance
of their Dif-
ference.

Of the Gothic,
and its Dia-
lects.

FROM the antient *Gothic Tongue* proceeded the two great *Branches*, the *Teutonic* and *Saxon Languages*; from whence all the *Northern Tongues*, as so many *Grand-children*, had their *Being*; as the *Swedish*, *Danish*, *Norwegian*, *High and Low Dutch*, *Flemish*, *Scots*, and *English*. Every one knows, that the *Bulk* of our *Language* is derived from the two great *Sources* of the *Teutonic* and *Saxon*. Thus the *Saxons* said, *Fæder*, *Suna*,

Suna, Hus, Biscoop-ric, Weorth-scype, Godleas, Godlicnesse, &c. from whence the *English* say, *Father, Son, House, Bishoprick, Worship, Godless, Godliness.*

To these may be added the *Sclavonic*, another very considerable *Mother Tongue*; as being of great *Antiquity*, and very large *Extent* in the North-eastern Parts of *Europe*; the *Tongues* of *Russia, Poland, Hungary, &c.* are *Dialects* of it. The *Old British* or *Welsh*, and the *Irish*, which also the *Highland Scots* speak, are reckon'd among the *Mother Tongues*; but have nothing in them worth Notice. And thus much for the Languages in general: I shall now treat of our own Language in particular; and first of its *Composition*.

Of the Sclavonic, and its Dialects.

THE antient Speech of this Island was the *Gaulic*, or old *French*, as being (in all probability) first peopled from *Gallia*, or antient *France*. But, a little before our Saviour's Time, *Julius Cæsar* having invaded and subdued the *Britons*; and in *Claudius's* Time, and soon after, a *Roman Colony* being planted here, *Britain* became a *Roman Province*; and the *Latin Language*, which the *Romans* then spoke, was introduced and mix'd with the *British*; though it never could suppress it. Afterwards, the *Roman Legions* being call'd home, the *Scots* and *Picts* (the *Inhabitants* of *North-Britain*) took the Opportunity to attack and harraß the Northern Parts of *England*; upon which King *Vortigern*, about the Year 440, call'd to his Assistance the *Saxons*, a great and powerful People in the North Parts of *Germany*, who with their Neighbours the *Angles, Teutones, &c.* came over, under the Conduct of *Hengist* and *Horsa*, who, subduing the *Picts* and *Scots*, were rewarded for their Service, first with the *Isle* of *Thanet*, and after with the whole *County* of *Kent*, which they govern'd about 350 Years; but growing powerful, they quarrell'd with, and by Degrees disposseßed the *Inhabitants* of all the Country on this Side the *Severn*, and divided it among themselves into Seven Kingdoms, call'd the *Saxon Heptarchy*. Thus they destroy'd the *British Tongue*, together with its *Inhabitants* (excepting some who retir'd over the Mountains of *Wales*, and carried with them their Language) and their own Language became the general Language of the *Island*, and thus continued

A short Account of the English Language from its first to its present State. Britain conquer'd by Cæsar.

Invaded by the Picts and Scots.

The Saxons, &c. arrive under Hengist and Horsa.

They establish their Heptarchy.

*The Danes
Invasion and
Settlement.*

till about the Year 800. Then the *Danes* infested the *North* and *East* Parts of *England*, and obtaining Footing, they at last arrived to the sole Government of it, in about two hundred Years; and so the antient Speech became tinctur'd also with the *Danish* Language. But their Rule lasting only twenty-six Years, made not so great Alteration in the *Anglo-Saxon*, as the next Revolution, which was by *William* the Conqueror, Duke of *Normandy* in *France*; who came over into *England*, vanquish'd the *Danes*, and subdued the *whole Land*; and as a Monument of their Conquest, the *Normans* endeavour'd to make their Language as generally receiv'd as their Commands; and thus compleated the Mixture, or rather the Medley of Language in *Great Britain*.

*The whole
Land subdu'd
by William
the Conqueror.*

*The English
Tongue a Med-
ley of several
others.*

THE *English* Tongue, such as it is at this Day, which eighteen hundred Years ago was the pure *British* or *Welch*, is now a Mixture of (1.) A little *British*; (2.) a great deal of *Latin*; (3.) a yet far greater Part of *Anglo-Saxon*, and *Teutonic*; (4.) some few Strictures of *Danish*; and (5.) an Abundance of *Norman French*. But since those antient Times, we have, by means of *Learning*, *Commerce*, &c. received very great Improvements from the *Greek*, *Latin*, *Modern French*, *Italian*, *Dutch*; and many proper Names of Men, Places and Things, from the *Hebrew*, *Syriac*, *Arabic*, and other *Eastern Tongues*.

*The English
Tongue is the
Quintessence
of others.*

BUT notwithstanding our Language is thus a Mixture or Compound of such heterogeneous Ingredients; yet it must be withal consider'd, that only the choice and valuable Parts of other Tongues have been selected and incorporated together in the Body of our own, which therefore may be look'd upon as the Quintessence of various Tongues; and by enfranchising and indenizening foreign Words and Terms of Arts and Sciences, it is indeed become a very copious, pithy, significant and learned Language; abounding with all the *Flowers* of *Rhetoric*, capable of all the Delicacy, fine *Similes* and *Allusions* of *Poetry*, and of supplying both the *Pulpit* and *Bar* with all the *Force* and *Energy* that *Speech* can pretend to.

*The English
Tongue com-
par'd with*

IN fine, though it be not so sacred as the *Hebrew*, so extensive as the *Arabic*, nor quite so learned as the *Greek*; so neither is it so scanty as the *Hebrew*, so difficult

difficult and irregular as the *Arabic*, so barbarous as others, and the *Irish*, so hard and unfounding as the *Welch*, so uncouth as the *Dutch*, nor so effeminate as the *French*; yet is it as *fluent* as the *Latin*, as *courteous* as the *Spanish*, as *courtlike* as the *French*, and as *amorous* and *founding* as the *Italian*; and is every way enrich'd and beautified with all the Ornaments and Decorations any Language is capable of, and fitly adapted to the *masculine*, *curious* and *noble Genius* of the renowned People who use it. I proceed now to say somewhat of the *Grammar* thereof; and first of that Science in *General*.

GRAMMAR is defined to be, *The Art of expressing the Relation of Things by Words in Construction, with due Accent in Speaking, and Orthography in Writing*, according to the Custom of those, whose Language we learn: Or, *Grammar* is the Art of Speaking and Writing truly. Of *Grammar* there be four Parts. (1.) *Orthography*, which treats of Letters. (2.) *Prosody*, of Syllables; and due Pronunciation. (3.) *Etymology*, or *Analogy*, which treats of Words. And (4.) *Syntaxis*, of Sentences, or due Construction of Words.

ORTHOGRAPHY is that Part of *Grammar* which teaches the Nature, Difference, Sound, Writing, and Joining of Letters into Syllables and Words. Letters are the first Elements of Speech, as being individual articulate Voices or Sounds.

LETTERS are divided into *Vowels* and *Consonants*. Vowels are those Letters, which, of themselves, make a full and perfect Sound, and are five, viz. *a, e, i, o, u*; and to these may be added the Greek *y*. The other Letters of the Alphabet are Consonants. Of these Vowels arise

Diphthongs, which are composed of two Vowels in one Syllable; and they are (1.) *Proper Diphthongs* when both the Vowels are pronounced; as *ai*, in *fair*; *au*, in *laud*; *ee*, in *Seed*; *oi*, in *void*; *oo*, in *Food*; and *ou*, in *House*. (2.) *Improper Diphthongs*, wherein the Sound of one Vowel is heard alone, and the other suppress'd; as *ea*, in *Tea*; *ie*, in *Fiend*; *eu*, in *Eunuch*; and such other. The Meeting of three Vowels in one Syllable is call'd a *Triphthong*; as *eau*, in *Beauty*; *ieu*, in *lieu*, *adieu*, &c.

THE

*Consonants
divided into
Mutes.*

*Semi-vowels
and Liquids.*

*Single and
Double.*

*Prosody,
what.*

*Orthoepy,
what.*

*A Syllable,
what.*

*The principal
Rules con-
cerning the
Orthoepy and
Orthography,
or the right
pronouncing
and writing*

THE *Consonants* are divided into *Mutes* and *Semi-vowels*. The *Mutes* are so call'd, because they can't be pronounced of themselves without a *Vowel*; they are *Nine*, as *b, c, d, g, p, q, t, j, v*; which are founded, *bee, cee, dee, &c.* The *Semi-vowels* are such as yield an imperfect Sound without the help of a *Vowel*; as *f, l, m, n, r, s, x, z*. Of which these four, *l, m, n, r*, are call'd *Liquids*, because they easily and smoothly flow away after a *Mute* in a *Syllable*, as in *glide, smile, gnaw, brine*; but they cannot be founded in the same *Syllable* before a *Mute* when a *Vowel* follows; as *rpo, ldi, &c.* Consonants are also consider'd as *Single*, as *b, c, d, &c.* or *Double*, as *x* and *z*; for *x* is composed of *cs*; as *Vex* sounds the same as *Vecs*; *Wax*, as *Wacs, &c.* Also *z* is made of *ds*; as *blaze* sounds *bladse* nearly, the *d* being turned off in a strong *Sibilation* or *Hissing*.

PROSODY is the second Part of *Grammar*, which treats of *Syllables* and their due *Division* and *Pronunciation* in Words; and in respect of this latter Part, 'tis call'd *Orthoepy*, or the *right speaking* or *expressing* of Words and *Syllables*. Moreover, *Prosody* also gives Rules for the *Quantity* of Voice, and due *Accenting* of *Syllables* in Words. As to the former, it properly relates to *Poetry*; the rest will be here consider'd in Order.

A *Syllable* is a compleat Sound or Utterance of one or more Letters, in one *Breath* or *Toue*; in which there must be always one or more *Vowels*; as *a, ve, nue; o, ri, ent*: These make the larger *Members* of Words; as *a-ve-nue, o-ri-ent*. And the Number of *Syllables* is various in Words; from *One*, as *I*; to *Eleven*, as in this long Word, *Ho-no-ri-fi-ca-bi-li-tu-di-ni-ty*. There are generally as many *Syllables* as *Vowels* or *Diphtongs* in a Word, excepting the final *e*: As *e-ver, e-ve-ry, de-face, trans-late, par-boil, blood-hound, a-dieu, &c.*

As to the *Orthoepy* or duly pronouncing Letters and *Syllables* in Words, take the following Rules. (1.) The final *e* lengthens the *Vowel* foregoing; as *can, cane; bed, bede; pip, pipe; rob, robe; tun, tune*. (2.) Words in *re* sound the *e* before the *r*, like *u*; as *Fire, Fi-ur; Desire, Desi-ur; Rere, Re-ur; Massacre, Massac-ur; Maugre, Maug-ur*. (3.) The *Latin* im-
proper

proper *Diphthongs* æ, œ, are sounded e; as *Cæsar*, *Letters and Phœbus*, *Ætna*, *OEconomy*, are pronounced *Cesar*, *Syllables in Phebus*, *Etna*, *Economy*. (4.) Also the *English Diphthong* eo often sounds only the e; as *Yeoman*, *Feeffee*, *Jeopardy*, *Leopard*; and like ee in *People*, *Feodary*: And eu at the beginning of Words sounds only u; as *Eunuch*, *Eulogy*, *Eucharist*; so does ue at the End, as *due*, *true*, *pursue*. (5.) U makes the g sound hard and lengthens the Syllable in *Vogue*, *Prologue*, *Epilogue*, *Dialogue*. (6.) C sounds hard like k before a, o, u, l, r; as *Cat*, *Cost*, *Cup*, *Clear*, *Crow*: before e, i, and y, like s; as *City*, *Cell*, *Cypress*. (7.) Ch is sounded like k, in *Chart*, *Chord*, *Character*. (8.) The Syllables ti and ci, if follow'd by a Vowel, sound like si, or shi; as in *Fiction*, *Condition*, *Logician*, *Musician*, &c. (9.) K begins Words of a hard Sound before i, e, and n; as *keep*, *kill*, *know*; but before a, o, u, we write c; as *call*, *cold*, *cup*. (10.) G has a hard Sound before a, o, u; as *Gall*, *Gold*, *Guilt*, and in *Ghefs* for *Guefs*. (11.) In Words where cc is found between i, the first c is hard, the other soft like f, as the Word *Siccity* sounds *Sikfity*. (12.) When gg occurs, they are both hard, as *dogged*, *rugged*. (13.) In Words ending in ck, 'tis most polite to omit the k; as for *Logick*, *Musick*, *Physick*, should be wrote *Logic*, *Musick*, *Physic*. (14.) The soft Sound of G before a, o, u, at the beginning of Words is express'd by j consonant, as *Jail*, *Jolly*, *Julep*; and *Jentleman* is truer Orthography than *Gentleman*. (15.) The Sound of f, in *Greek* Words, must be wrote with ph; as *Physic*, *Philosophy*, *Philip*, *Phlegm*, &c. (16.) The Syllable que at the End, is sounded like k; as *antique*, *pique*, *barque*; and q is never written without u after it. (17.) In some or most *French* Words, ch is sounded like sh; as *Machine*, *Chevalier*, *Capuchin*, *Chaise*, are sounded *Masheen*, *Shevalier*, *Capusheen*, *Shaize*. (18.) The final e makes a distinct Syllable in *Foreign* Words which end therein, as *Mam-re*, *Eu-ni-ce*, *Si-mi-le*.

IN *Diastasis*, or the Division of Words into Syllables, observe the following Rules. (1.) When a single Consonant comes between two Vowels, 'tis joined with the latter in Spelling, as *Na-ture*, *e-ve-ry*, *di-li-gent*; except x, which is join'd with the first,

The Rules of Diastasis or Spelling.

as *Lex-i-con*, *Ox-en*. (2.) But compound Words must be divided back into their component Parts; as *un-armed*, *un-usu-ful*, *safe-ty*, *in-ure*, *ad-orn*, *name-less*, &c. (3.) All Terminations must be separated, as *deliver-ed*, *deliver-edst*, *deliver-eth*, *deliver-est*, *deliver-ing*, *deliver-er*, *deliver-ance*, &c. (4.) All those Consonants which can begin a Word, may begin a Syllable together; and such are *bl*, *cl*, *fl*, *gl*, *pl*, *ß*; *br*, *cr*, *dr*, *fr*, *gr*, *pr*, *tr*, *wr*; *ch*, *dw*, *gn*, *fn*, *sp*, *sq*; *kn*, *qu*, *sc*, *sh*, *sm*, *st*, *sw*, *th*, *tw*, *wh*; also these treble Consonants; *sch*, *scr*, *shr*, *skr*, *spr*, *spl*, *str*, *thr*, *thw*. (5.) A Mute and Liquid go together in the last Syllable; as *Cra-dle*, *Ti-tle*, *Fa-ble*, *mau-gre*, &c. (6.) If two Consonants meet that can't begin a Word, they must be divided; as *sel-dom*, *num-ber*, *pop-py*, *ac-cord*, *ar-dent*, &c. (7.) When two Vowels meet, and both are distinctly sounded, they must be divided; as *re-enter*, *mu-tu-al*, *La-o-di-ce-a*, *di-ur-nal*, &c.

Of Accenting Words, and the principal Rules directing thereto.

THE true Accenting of Words is a difficult thing, as it is a rising or falling of the Voice above or below its usual Tone: It is an Art somewhat arbitrary, and of which we have but little Use, and know scarce any thing but by the Laws of Custom. However the following Directions may be of Service in this Affair. (1.) When a Word is both the Name of a Thing, and signifies Action, the first Syllable is accented in the former Case, but the last in the latter; as in the Name itself *áccent*; but *accént*, to raise or fall the Voice; *Cóntest*, a Dispute; to *contést*, to dispute; *Récord*, a Writing; to *recórd*, to commit to Writing, &c. (2.) When any Ending, as *-able*, *-ful*, *-ish*, &c. is join'd to any Monosyllable, the first Syllable is long or accented; as *Peáce-able*, *sinful*, *self-ish*, *toil-some*, *gód-ly*, &c. (3.) Words of two Syllables ending in *er*, *or*, *ure*, are accented on the first generally; as *énter*, *ráther*, *Hónor* or *Hónour*, *vénture*, &c. (4.) When a Word obscurely ends in *-le* or *-en*, the Accent is on the first Syllable; as *Trouble*, *Gárdén*. (5.) When Particles are compounded with Words of one Syllable, they lengthen the Word; as *allúre*, *collégue*, *pollúte*, *refér*, *desér*; except *Cónduit*, *pérfect*, *Prélate*, and some others. (6.) If an Ending be added to a Word of two Syllables, the Syllable that was first long continues so, as *Prófit*, *Prófitable*; except *Pro-tést*,

tést, Prôteſtant. (7.) In Words of more than *two Syllables*, the Accent is generally on the third Vowel from the laſt ; as *Salvâtion, Damnâtion, Fidélity, &c.* Except (8.) when the Vowel is long by *Position*, i. e. when ſet before two or more *Conſonants*, and bears *hard* upon them, then it is long ; as *abúndance, ac-cômpliſh, illúſtrate, Horizón, &c.* (9.) *Diphthongs* and *Triphthongs* are moſtly long, as *embróider, reproóf, re-joíce, Recéipt, Beautý, adiéu*, except *Lieuténant, &c.* (10.) In foreign Words, the Accent lies on that Vowel, which, in the Original, was a *Diphthong*, as *Dariús, Encómium, Eclipsis, Eccopé, égal, &c.* But to this Rule there are ſeveral Exceptions. Theſe are the principal Rules both for *Accent* and *Quantity* in the *Engliſh Tongue*.

ETYMOLOGY or *ANALOGY* is the third *Etymology or Analogy, what.* and moſt conſiderable Part of *Grammar*, as it treats of the *Nature, Kinds*, and various *Accidents* and *Aſſections* of Words, which compoſe the Body or Subſtance of a Language.

WORDS are compoſed (as aforeſaid) of *one or more Syllables*, by the Sound whereof we convey our Sentiments to others, and by this Means Men are render'd *converſable* or *ſocial* Beings. Of Words, in every Speech, there are reckon'd eight ſeveral Sorts, *Of Words, and the Eight Parts of Speech.* viz. (1.) The *Noun*, or Name ; (2.) *Pronoun*, or perſonal Name ; (3.) *Verb*, the Word ſignifying *Action* or *Paſſion* ; (4.) *Participle* ; (5.) *Adverb* ; (6.) *Conjunction* ; (7.) *Prepoſition* ; (8.) *Interjection*. Theſe are call'd the Eight Parts of Speech ; of all which in their Order.

A *Noun* is the *Name* of a *Thing*, abſolutely, and without Regard to *Perſon, Time* or *Place*. Of *Nouns* there are in *Engliſh* the following *Accidents*, *The Accidents of Nouns.* (1.) *Species* ; (2.) *Figure* ; (3.) *Quality* ; (4.) *Number* ; (5.) *Perſon* ; (6.) *Gender* ; (7.) *Caſe* ; and (8.) *Comparison*.

Species of *Nouns* I conſider as *fourfold* ; (1.) *Primitive*, ſuch as are themſelves *Original*, as *Man, God*. *The Species of Nouns. Primitives.* Under this Head are reckon'd *Interrogatives*, as *what? who? which?* *Redditives*, as *ſuch, this, that*. *Collectives*, as the *People, the Crowd, the Flock, the Herd*. *Numeral Nouns*, as *Cardinals* *one, two, three, &c.* *Ordinals*, as *firſt, ſecond, third*. *Partitives,*

Derivatives.

tives, as whoever, any, either, neither. *Universals*, as all, every one, none, nobody. *Particulars*, as some one, any one, each. (2.) *Derivative*, as *human*, *Woman*, *Godlike*. Under this Head are reckon'd *Verbals*, as *Reading*, *Hearing*, *Offering*. *Participials*, as *obedient*, *apparent*, *eligible*, *facile*, *demonstrative*. *Gentiles*, as *Greek*, *Latin*, *German*, *Chinese*, *English*. *Patronymics*, as *Hebrews*, *Israelites*, *Ishmaelites*, *Korathites*. *Possessives*, as *servile*, *regal*, *paternal*. *Local Nouns*, as *rural*, *marine*, *Oxonian*, *Parisian*. *Material Nouns*, as *Wooden*, *Stony*, *Aspen*.

Substantives.

(3.) *Substantive Nouns* are such as regard the *Substance* of Things; and are proper to *Individuals*, as *Plato*, *Socrates*, *Jesus*, *John*; or *Appellative*, which agree to many; as *Man*, *Stone*, *Fish*, *Fowl*, *Beast*, *Justice*, *Goodness*. (4.) *Adjective Nouns*, such as are always join'd with *Substantives*, and shew their *Qualities* and *Affections*, as *good*, *bad*, *high*, *low*, *quick*, *gentle*, *hard*, *soft*, *white*, *black*. To a *Substantive* you cannot add the Word *Thing*, but to any *Adjective* you may, as *black Thing*, *fine Thing*, &c.

The Figure of Nouns.

THE Figure of Nouns is threefold, *Simple*, *Compound*, and *Decomound*; as *soluble*, *resolvable*, *irresoluble*; *passionate*, *compassionate*, *incompassionate*.

The Quality of Nouns.

THE Quality of Nouns is twofold, *Proper* and *Appellative*, both which were consider'd under the *Substantives* above.

**The Numbers of Nouns.
Singular.
Plural.**

THE Numbers of Nouns are two, viz. (1.) *Singular*, which speaks only of *one Thing*; as *Father*, a *Stone*, a *Man*, a *Face*, an *Ox*, an *Index*. (2.) The *Plural*, which speaks of *more than one*, or *many*; as *Fathers*, *Stones*, *Men*, *Faces*, *Oxen*, *Indices*; where you observe great *Irregularity* in forming the *Plural* from the *Singular*; though for the most Part 'tis done by adding *s* to the *Singular*; as *Field*, *Fields*; *Hat*, *Hats*; *Tree*, *Trees*, &c. But if the *Singular* ends in *s*, *se*, *ze*, *x*, *sh*, *ce*, *ch*, *ge*, the *Plural* requires *es*; as *Last*, *Lasses*; *Horse*, *Horses*; *Maze*, *Mazes*; *Fox*, *Foxes*; *Fish*, *Fishes*; *Prince*, *Princes*; *Tench*, *Tenches*; *Page*, *Pages*. Several Names have no *Singular*, as *Annals*, *Asbes*, *Alps*, *Bowels*, *Bellows*, *Breeches*, *Scissars*, &c. and some have no *Plural Number*; as *John*, *Wheat*, *Air*, *Blood*, *Beer*, *Lead*, *Brass*, *Prudence*, *Pride*, *Hunger*, *Soot*, *Vulgar*, &c.

THE Person of *Nouns* will be consider'd under the second Part of Speech, *Pronouns*; as most properly belonging thereto. The *Gender* of *Nouns* is twofold, (1.) *Masculine*, which respects the *Male*, or *He-kind*; as *Man*, *Horse*, *Dog*; and (2.) *Feminine*, which relates to the *Female* Part of *Animals*, or the *She-kind*; as *Woman*, *Mare*, *Bitch*. These are all the *Genders* the *English* observe, and indeed all that really are in Nature; for what the *Latin* calls the *Neuter*, the *Common*, the *Doubtful*, the *Epicene*, are not distinct *Genders* from the *Masculine* and *Feminine*, but only express some *Quality* or *Affection* of them, as is plain to the intelligent Reader. In short, all *inanimate Beings* have properly no *Gender*, because no *Distinction* of *Sexes*, or rather *no Sex* at all; and therefore when we speak of them, instead of the *Generical* Particles *He* or *She*, we use the neutral Particle *it*; as, *it was hard*, *it was high*, *it felt cold*, &c. The *English* Tongue generally expresses different *Sexes* by different Words, as above; but some few by different *Terminations* of the same Word; as *Poet*, *Poetess*; *Actor*, *Actress*; *Emperor*, *Empress*; *Count*, *Countess*; *Executor*, *Executrix*; *Administrator*, *Administratrix*.

THE *Cases* of *Nouns* are generally reckon'd Six; (1.) The *Nominative*, when the Name is directly and absolutely put with the Preposition *a*, *the*; as *a King*, *the King*, &c. (2.) The *Genitive*, which has the Sign *of*, as *of a King*. (3.) The *Dative*, known by the Sign *to*, as *to the King*. (4.) The *Accusative*, which cometh after the *Verb* with the Particle *the*; as, *I read the Book*. (5.) The *Vocative* is that wherein we call or speak to a Person; as, *O King! Thou Villain!* (6.) The *Ablative Case* is known by some of these Prepositions, *in*, *with*, *through*, *for*, *from*, *by*, *than*, &c. As, *from the House*, *in the Heart*, &c. I shall subjoin an Example of Expressions, wherein all the six *Cases* of the Word *Book* are used in the *Singular* and *Plural Number*.

The Genders of
Nouns.

Masculine.
Feminine.

The Neuter,
Common and
Epicene Gen-
ders are not
properly Gen-
ders.

The Cases of
Nouns are Six.

The Nominative.

Genitive.

Dative.

Accusative.

Vocative.

Ablative.

Singularly.

Nom. There was a Book.

Gen. The Price of the Book.

Dat. He added to the Book.

Accus. He read the Book.

Voc. The Poet said, Go, O Book.

Abl. He took it from a Book.

Plurally.

There lay the Books.

The Number of the Books.

It gave Splendor to the Books.

They print many Books.

He said, O choice Books!

He got a great Name by Books.

An Example
of an English
Noun declin'd.

THE Latin, Greek, &c. form these Cases by different Endings of Words, which they call *Declining of Nouns*; and of these *Declensions* they have five several Sorts, not at all to our Purpose to take any Notice of here.

The Comparison of Adjectives, what. Three Degrees. Positive,

Comparative.

Superlative.

THE Comparison of Nouns Adjectives is that whereby the Quality of Things is relatively consider'd; and is therefore said to be of three Degrees, viz. (1.) The Positive Degree, which indeed is not properly any Degree of Comparison, because it considers not the Quality of Things comparatively with others, but simply and absolutely as it is in its first State; as, *hard, soft, white, black, &c.* (2.) The Comparative Degree is that which expresses the Quality of Things somewhat increased or diminished; and is form'd by adding *er* to the Positive; as, *harder, softer, whiter, blacker, &c.* (3.) The Superlative Degree is that which expresses the greatest Intensity, or utmost Degree of the Quality of Things, and is form'd by adding *est* to the Positive; as, *hardest, softest, whitest, blackest.* But in many Adjectives there is great Irregularity, and entire new Words requir'd to express different Degrees; as, *good, better, best; bad, worse, worst; much, more, most.* Also we compare with the Words *more, most, very, &c.* As *large, more large, most or very large, &c.*

Pronouns how they differ from Nouns.

Substantive and Adjective.

The Persons of Pronouns.

Pronouns are reckon'd the Second Part of Speech, though in reality they differ not from Nouns, save only that they chiefly and primarily signify Persons, and secondarily Things; so that Pronouns are only personal Nouns or Names, and so ought not to be made a distinct Part of Speech. Of Pronouns some be Substantive, as *I, Thou, He, She*; others Adjective, as *mine, thine, his, hers, ours, theirs, &c.*

AGAIN, since in Discourse whatever is said, is spoke either of ourselves, to another, or of some third Person, 'tis necessary there be three Persons, which are in each Number as here represented.

The Persons.	Before the Verb.		After the Verb.		With a Noun.		Without a Noun.	
	S.	P.	S.	P.	S.	P.	S.	P.
1st Perf.	I	We	Me	Us	My	Our	Mine	Ours
2d Perf.	Thou	Ye	Thee	You	Thy	Your	Thine	Yours
3d Perf.	Masc. He	} They	Him	} Them	His	} Their	His	} Theirs
	Fem. She		Her		Her		Hers	
	Neut. It		It		Its		Its	

THE Interrogatives *Who* for a *Person*, and *What* for a *Thing*, make *Whom* after the *Verb*, or in any *Case* but the *Nominative*, and the *Genitive Plural*, *Whose*. *This*, which refers to somewhat near, and *That* to somewhat remote, have in their *Plural Number*, *These* and *Those*; and those who would write correct, should never put *it's* for *'tis*, or *it is*; or say, *it's* a *Fault*, for *it is* a *Fault*.

THE next and most considerable Part of Speech is the *Verb*, which signifies *Being*, *Action*, or *suffering Action*; or it is that Word in a Sentence which expresses what is affirm'd or said of Things; for which Reason Verbs are most properly call'd *Affirmations*. Verbs are divided into *Active* or *Passive*. The *Active Verb* denotes the doing some *Action*, as *I love*, *thou scornest*; the *Passive Verb* denotes *suffering* some *Action*; as *I am loved*, *thou art scorned*. Some distinguish the *Verb Active* into *Transitive* and *Intransitive*: A *Transitive Verb* is that whose *Action* passeth on some other Thing; as, *he beats the Dog*. The *Intransitive Verb* expresses only mere *Action* in the *Agent*; as, *he liveth*, *he walked*.

VERBS are *conjugated*, or varied by diverse *Terminations*, according to the *Mood*, *Tense*, *Number*, and *Person* thereby implied and designed.

THE *Mood* of a Verb is that *peculiar Manner* in and by which its *Action* is express'd; and of these *Moods* we may reckon *Four* in the *English Tongue*; as (1.) The *Indicative Mood*; which simply indicates, or sheweth its *Action absolutely*; as *I speak*, *thou hearest*, *they walk*. (2.) The *Subjunctive Mood*; in which the Verb is *subjoin'd* to, or depends on some other Verb in the Sentence; as, *You will be corrected*, if you *play*. This *Mood* is generally reckon'd with two others, *viz.* The *Potential*, when besides the mere *Affirmation*,

Of the third Part of Speech, the Verb, and the several Sorts thereof;

Active.

Passive.

Transitive.

Intransitive.

The Conjugation of Verbs.

The Moods, what.

Indicative.

Subjunctive.

Potential.

firmation, the Power, Liberty, Will, &c. of the Agent is express'd ; as I can read, thou mayst hear, he would run : And the Optative Mood, which always involves a Wish, Desire, &c. As, would to God I had learn'd.

Optative. (3.) The *Imperative Mood*, which commands, exhorts, or intreats ; as, *read thou, let them hear.* (4.) The *Infinitive Mood*, which expresses the *Action* of the Verb indefinitely, and is known by the Particle *to* ; as, *to love, to read, to write.*

The Tenses of a Verb, what. THE *Tenses* of Verbs are the *Times* in which they exert their *Action* ; and they are reckon'd *Five*, viz.

Present. (1.) The *Present Tense*, or Time now present while the *Action* is doing ; as *I love, thou art loved, they do see.* (2.) The *Preter-imperfect Tense*, which relates to the Time past, and imports the *Action* of the Verb then in *Being*, but not finish'd ; as, *I did love, viz.*

Preter-perfect. *then, and do still.* (3.) The *Preter-perfect Tense* refers to the Time perfectly past which belongs to the *Action* ; as, *I have loved, but (you may add) that's now over.* (4.) The *Preter-pluperfect Tense*, which

Preter-pluperfect. refers you to some Time which was past before some other Time which is also now really past ; as, *I had heard it, before he sent the News.* (5.) The *Future Tense* relating to the Time to come ; as, *I shall or will love.*

Future.

The Persons of Verbs, how form'd. THE Verbs are varied also in all the *Three Persons* in the *Singular Number* ; to the first Person belongs the *Theme* of the Verb, as *I love* ; the second is form'd by adding *est*, as *thou lovest* ; the third by *eth*, as *he loveth.* The Persons in the Plural vary not the Termination of the first Person singular in any of the *Tenses* ; as, *we love, ye love, &c.*

Of the Auxiliary Verb Am. In order to have a clear Notion of *Conjugating English Verbs*, you must first see the Conjugation of the Verb *am*, which is call'd the *Auxiliary* or *helping Verb*, because it is altogether used in forming the *Passive Voice* of Verbs. A Paradigm of which here follows in the *Indicative Mood, Tenses, Numbers and Persons.*

INDICATIVE MOOD.

	Singular.			Plural.		
	I	Thou	He	We	Ye	They
<i>Present Tense.</i>	am	art	is	are		
<i>Pret. imperf.</i>	was	wast	was	were		
<i>Preter-perf.</i>	have been	hast been	hath been	have been		
<i>Preterpluperf.</i>	had been	hadst been	had been	had been		
<i>Future.</i>	will be	wilt be	will be	will be		

Here follows a Paradigm of the Conjugation of the Regular Verb *Love*, in the *Active* and *Passive* Voice.

The INDICATIVE MOOD.

Active Voice. *The PRESENT.* *Passive Voice.*

<i>Sing.</i>	{ I love or do love.		{ I am loved.	
	{ Thou lov'st or do'st love.			{ Thou art loved.
	{ He loveth or does love.			
<i>Plur.</i>	{ We		{ We	
	{ Ye			{ Ye
	{ They } love or do love.			

The IMPERFECT.

<i>Sing.</i>	{ I loved or did love.			{ I was loved.	
	{ Thou loved'st or did'st love.			{ Thou wast loved.	
	{ He loved or did love.			{ He was loved.	
<i>Plur.</i>	{ We			{ We	
	{ Ye			{ Ye	
	{ They } loved or did love.			{ They } were loved.	

The PRETERPERFECT.

<i>Sing.</i>	{ I have loved.		{ I have been loved.	
	{ Thou hast loved.			
	{ He hath loved.			
<i>Plur.</i>	We	{ have loved.	We	{ have been loved.
	Ye			
	They			

Active Voice. The PRETERPLUPERFECT. Passive Voice.

<i>Sing.</i>	{	I had loved.		{	I had been loved.
		Thou had'st loved.			Thou had'st been loved.
		He had loved.			He had been loved.
<i>Plur.</i>	{	We	{	{	We
		Ye			Ye
		} had loved.			} had been loved.

The FUTURE.

<i>Sing.</i>	{ I shall or will love.			{ I shall or will be loved.	
	{ Thou shalt or wilt love.			{ Thou shalt or wilt be loved.	
	{ He shall or will love.			{ He shall or will be loved.	
<i>Plur.</i>	{ We		{	{ We	
	{ Ye			{ Ye	
	{ They			{ They	
	} shall or will love.			} shall or will be loved.	

*The SUBJUNCTIVE MOOD.**The PRESENT.*

<i>Sing.</i>	{	I may or can love.		{	I may or can be loved.
	{	Thou may'st or can'st love.		{	Thou may'st or can'st be loved.
	{	He may or can love.		{	He may or can be loved.
<i>Plur.</i>	{	We	{	{	We
	{	Ye		{	Ye
	{	They		{	They
		} may or can love.			} may or can be loved.

The IMPERFECT.

<i>Sing.</i>	{ I might or could love.			{ I might or could be loved.		
	{ Thou might'st or could'st love.			{ Thou might'st or could'st be loved.		
	{ He might or could love.			{ He might or could be loved.		
<i>Plur.</i>	{ We		{	{ We		
	{ Ye			{ Ye		
	{ They			{ They		
	} might or could love.			} might or could be loved.		

The PRETERPERFECT.

<i>Sing.</i>	{ I may have loved.			{ I may have been loved.	
	{ Thou may'st have loved.			{ Thou may'st have been loved.	
	{ He may have loved.			{ He may have been loved.	
<i>Plur.</i>	{ We		{	{ We	
	{ Ye			{ Ye	
	{ They			{ They	
	} may have loved.			} may have been loved.	

Active

Active Voice. The PRETERPLUPERFECT. Passive Voice.

<i>Sing.</i>	{ I might have or had loved.		{ I might have or had been loved.		
	{ Thou mightest have loved.			{ Thou might'st have been loved.	
	{ He might have loved.				{ He might have been loved.
<i>Plur.</i>	{ We		{ We		
	{ Ye } might have loved.			{ Ye } might have been loved.	
	{ They }				{ They }

The FUTURE.

<i>Sing.</i>	{ I shall have loved.		{ I shall have been loved.	
	{ Thou shalt have loved.			{ Thou shalt have been loved.
	{ He shall have loved.			
<i>Plur.</i>	{ We		{ We	
	{ Ye } shall have loved.			{ Ye } shall have been loved.
	{ They }			
		{ They } shall have been loved.		

*The IMPERATIVE MOOD.**The PRESENT.*

<i>Sing.</i>	{	Love thou, or do thou love.		{	Be thou loved.
		Let him love.			Let him be loved.
<i>Plur.</i>	{	Love ye, or do ye love.		{	Be ye loved.
		Let them love.			Let them be loved.

<i>The INFINITIVE MOOD.</i>	{ <i>Present,</i>		{ To love.	
	{ <i>Perfect,</i>			{ To have or had loved.
	{ <i>Future,</i>			

<i>The PARTICIPLES.</i>	{ <i>Active,</i>		{ Loving.
	{ <i>Passive,</i>		

SUCH is the Conjugation of a *regular Verb* ; which you see is mostly perform'd with the *passive Participle loved*, and the auxiliary Verbs *do, have, shall, will, may, can, and am.*

As to the *Participles*, they are so call'd as partaking of the Nature of both *Noun* and *Verb* ; of the first, as it is a sort of *Adjective*, and may be declined with Cases ; as *loving, of loving, to loving, &c.* and it hath Tense and Signification from the Verb. For the *active Participle loving* is of the *Present*, the *Passive*

Of Participles, the fourth Part of Speech.

loved of the *preterite Tense*. The *Active* is always form'd by adding *ing* to the *Theme*; as *love, loving; read, reading; laugh, laughing*. The *Passive* is mostly form'd by adding *ed*, or *d*, to the *Theme*; as *love, loved; burn, burned; laugh, laughed*: But some are irregular in *en*, and *t*; as *rise, risen; take, taken; bit, bitten; give, given; dream, dreamt; mean, meant; weep, wept, &c.* And here observe, that after *c, ch, sh, f, k, p, x*, and sometimes after *s, th*, and *l, m, n, r* (when a short Vowel goes before) the *ed* or *d* is chang'd into *'t*, with or without an Apostrophe; as *plac't, snatch't, fish't, wak't, leapt, vex't, smelt, &c.* instead of the better Form, *plac'd, chang'd, fish'd, wak'd, leap'd, vex'd, smell'd*; and which were still much better wrote entire, as *placed, snatched, chang-ed, &c.*

*Of Adverbs,
and their se-
veral Kinds.*

A D V E R B S make the *fifth Part of Speech*; and are such indeclinable Words, as being join'd to a *Noun* or *Verb, Participle, &c.* do express some *Circumstance, Quality, or Manner* of their Signification: And in *English* generally end in *ly*; as *wisely, happily, greatly, &c.* *Adverbs* may be reduced to the following Heads. (1.) *Adverbs of Time*; as, *now, then, yesterday, lately, presently, to-morrow, when, ever, never, daily, long, often, seldom, again, anon, &c.* (2.) *Adverbs of Place*; as, *where, here, there, within, without, whither, thither, towards, upwards, downwards, the right, the left, whence, thence, hence, above, below, which way? this way, that way, &c.* (3.) *Adverbs of Number and Order*; as, *once, twice, thrice; then, thereafter, moreover, so forth, of new, finally, lastly, first, secondly, thirdly, &c.* (4.) *Adverbs of the Manner, Quality, &c.* And these are either *Absolute*; as, *simply, well, ill, bravely; truly, verily, certainly; happily, perhaps, no, not; to wit, namely; apart, together; lo! behold! why? whether, &c.* or *Comparative*, as *more, exceedingly; less, hardly, well-nigh; so, alike, as; otherwise, differently, &c.*

*Of the sixth
Part of
Speech, call'd
Conjunctions,
and the Kinds
of them.*

C O N J U N C T I O N S are reckon'd the *sixth Part of Speech*. These are such *Particles, or unvariable Words*, as serve to conjoin *Words* and *Sentences* together, and thereby shew their Dependence on one another. Of these there are the following Sorts. (1.) *Copulatives*; as, *and, with; neither, nor.* (2.) *Disjunc-*

Disjunctives; as, *either, or*. (3.) *Concessives*; as, *though, although, albeit, yet*. (4.) *Adversatives*; as, *but, yet, notwithstanding, nevertheless*. (5.) *Causals*; as, *for, because, that*. (6.) *Illatives*; as, *therefore, wherefore, seeing, since*. (7.) *Finals*; as, *that, to that end*. (8.) *Conditionals*; as, *if, provided, if indeed*. (9.) *Exceptives*; as, *unless, except*. (10.) *Diminutives*; as, *at least, only*. (11.) *Expletives*; as, *now, truly, indeed, forsooth*. (12.) *Declaratives*; as, *viz. to wit, namely, &c.*

PREPOSITIONS are the *seventh Part of Speech*; and, as their Name implies, are set before *Nouns Substantives* to shew the Relation between them, and also the *Manner, Order, Cause, Time, Place* and other *Circumstances of Nouns and Verbs*; as, *in, to, through, by, before, behind, after, from, at, against, about, among, for, with, beyond, &c.* And besides this *separate Use of Prepositions*, they have another, which is to be joined in *Composition* with a vast Number of *Nouns and Verbs*; and by this means they create a great Variety, and give a peculiar *Beauty, Fluency, and Elegance* to the Language; as hath been before intimated.

INTERJECTIONS make the *Eighth and last Part of Language*; these are small indeclinable *Words or Particles*, which denote the *Affections and Passions of the Mind*, independently of any other Word in the Sentence; as in *Calling, Ho, Soho!* in *Rejoycing*, as, *O brave!* Some express *Grief*; as, *ah! alas! wo is me!* some *Wonder*; as, *O strange! indeed!* some *Praise*; as, *well done!* some *Aversion*; as, *away! phy! tush!* some *Surprize*; as, *Good God! What!* some *Fear*; as, *ha! aba!* some *Silence*; as, *hark! hush! 'st!* some *Derision*; as, *avant! away with!* some *Imprecation*; as, *wo, pox on't!* some *Wishing*; as, *God grant! would to God!* some *Deprecation*; as, *God forbid!*

CONCERNING all those Particles, which make the four last Parts of Speech, this in general may be observ'd, that they are very often used *interchangeably* the one for the other, according to the *Tenor and Exigency of the Sentence or Expression*; the same Word being now an *Adverb*, then a *Conjunction*, sometimes a *Preposition*, at others an *Interjection*; as is obvious

Of the seventh Part of Speech, call'd Prepositions.

Of the eighth Part of Speech call'd Interjections, and their several Kinds.

A general Observation.

to the Eye of every observant Reader. I shall now proceed to the last Part of Grammar, *viz.*

*Of the fourth
Part of Gram-
mar, Syntaxis.
A Sentence,
what.*

THE SYNTAXIS or due *Construction* of Words in Sentences. A *Sentence* is an *Expression* which consisteth at least of two Words, as *God is, John readeth*; but oftentimes it hath three or more, as, *God hateth Liars*, but *His Countenance* doth always behold the *Upright*. In every *Sentence* there must be found a *Noun* and a *Verb*, the first the *Subject* of which the latter doth *affirm* something, as, *a Lie is abominable*.

*The two Parts
of Syntaxis,
Concord and
Government.*

THE Syntaxis, in those Tongues which vary the Terminations of the *Nouns* and *Verbs*, is divided into two Parts, *viz.* *Concord* and *Government*. *Concord* is the Agreement of Words in *Number*, *Person*, *Gender*, *Case*, &c. *Government* is when one Word so governs another, that it causes it to be put into some special *Case*; and therefore, since *all Cases* of *English Nouns* are made by invariable *Particles*, or *little Words*, as before hath been taught, it plainly appears that *little Syntactical Government* is to be expected in our Tongue, and that 'tis much better taught by the *Genius* thereof, than by the *Rules of Art*.

*Some Rules
for English
Concord.*

BUT with Regard to *Concord*, somewhat is necessary to be said; since, though in it self so easy, it is so little understood or attended to, in either *Speaking* or *Writing*, amongst *common People*. Its Rules are few and plain, and are as follow. (1.) The *Particles a* and *an* must never be set before *Nouns* of the *Plural Number*; but *the* before *Singular* and *Plural*; as *a Man, an House, the Man, the House*. (2.) A *Verb* must agree with its *Noun* in *Number* and *Person*, as *Thou readest, He beareth, We read*. (3.) Two *Nouns* singular, having a *Conjunction Copulative* between them, require a *Plural Verb*; as, *The King and Queen reign, not reigns: His Justice and Goodness were* (not *was*) *great*. (4.) *Nouns* of *Number*, or *Collectives*, may have a *Singular* or *Plural Verb*, though themselves be *Singular*; as, *The Mob is, or are, unruly; the Parliament is, or are, sitting; Part of the Nation was, or were, slain*. (5.) Any *Sentence*, or *Matter*, being the *Subject* of the *Verb*, requires the *Verb* to be put in the *Singular Number*; as, *Early Rising is healthful; to be learned is very honourable*. (6.) When two *Nouns* of different Numbers are connected

in

in a Sentence by a *Verb*, the *Verb* generally agreeth in *Number* with the *nearest* ; as, Nothing is here wanting but *Charms*: *Riches* are too often a *Snare* to Men. The Rules of *Concord* between the *Substantive* and *Adjective*, the *Relative* and *Antecedent*, have in our Tongue no Place.

AND when these or any other Rules of Grammar are transgressed in *Speaking* or *Writing*, such a Default is call'd a *Solecism*, or an *Impropriety of Speech*, wherein the *Expression* is *rude*, *uncouth*, and *barbarous*. It is said to be derived from the *Soli*, a People of *Attica* in *Greece*, who being transplanted to *Cilicia* in *Lesser Asia*, quite lost the Purity of their *Mother Tongue*, and became remarkable and even a *By-saying* for their *barbarous Pronunciation*.

Solecism, what.

Whence derived.

As *Syllables* are composed of *Letters*, *Words* of *Syllables*, and *Sentences* of *Words* ; so *Periods* are composed of *Sentences*, and a *Discourse* of *Periods*. Every *Period* ought to have two compleat *Sentences*, and not to exceed four. And that the *Period* may be just and agreeable, the *Expressions* or particular *Sentences* should not be too long, but such as may render the whole *Period* proportional to the *Breath* of the *Speaker*, and the *Voice* capable of reposing at convenient *Intervals*.

Of Periods, their Nature and Composition.

A *Period* therefore cannot consist of less than two *Sentences* or *Members* ; for instance, (1.) *As the Body without the Spirit is dead*, (2.) *so Faith without Works is dead also*.

A Period of two Sentences.

A *Period* of three *Members* may be such as this ; (1.) *Seeing that by thee we enjoy great Quietness, and that very worthy Deeds are done unto this Nation by thy Providence* ; (2.) *we accept it always, and in all Places, most noble Felix, with all Thankfulness* : (3.) *Yet that I be not further tedious to thee, I pray that thou would'st hear us, of thy Clemency, a few Words*. A *Period* of three *Members* more simple : (1.) *In the Beginning was God*, (2.) *and the Word was with God*, (3.) *and the Word was God*.

A Period of three Sentences.

A *Period* of four *Sentences* or *Members* : (1.) *The Father judgeth no Man*, (2.) *but hath committed all Judgment to the Son* ; (3.) *That all Men should honour the Son*, (4.) *even as they honour the Father*.

A Period of four Sentences.

THUS much for the Nature of *Periods* in general, which, as they are the *Parts* or *Members* of *Discourse*,
so

so the more *equal*, *propotionate*, *sententious*, and *beautiful* they are contrived, the more *substantial*, *perfect*, *elegant*, and *agreeable* will be the Oration; and therefore it is a Matter of the *greatest Importance* to those that speak in *Public*.

*The Points or
Stops used in
Writing.*

IN Writing we use several Stops or Pauses, and other Marks or Characters, which are as follow, *viz.* The *Comma* (,) which stops the Voice while you tell *one*. The *Semicolon* (;) pauseth while you tell *two*. The *Colon* (:) while you tell *three*; and the *Period*, or *full Stop*, (.) while you tell *four*. They are used in a Period according as the *Sense* of each separate Member is more complete, and the last or full Stop only at the Close of the Period.

*Other Marks
and Chara-
cters.*

The Marks or Characters used by Writers are these:

(1.) An *Interrogation* (?) when a *Question* is asked, as, *Who?*

(2.) A *Note of Admiration* (!) as, *Was ever the like seen!*

(3.) An *Accent* (').

(4.) An *Apostrophe*, (') as *I'll*, for, *I will*.

(5.) An *Asterism* (*) referring to somewhat in the *Margin*.

(6.) An *Obelisk* (†) of the same Use.

(7.) A *Paragraph* (¶) begins a new Head or Subject.

(8.) A *Section* (§) denotes the Beginning of a new *Section*.

(9.) A *Quotation* (") shews a *Passage quoted* from an Author.

(10.) An *Index*, (☞) a *Hand* pointing to somewhat very remarkable.

(11.) An *Hyphen*, (-) used to separate *Syllables*, as *God-head*.

(12.) A *Parenthesis* () or *Crotchet* [], including one Sentence within another.

An alphabetical LIST of ABBREVIATIONS.

A. <i>Aulus, Afternoon.</i>	Esq; <i>Esquire.</i>
A. B. <i>Artium Baccalaureus,</i> or Bachelor of Arts.	Ev. <i>Evangelist.</i>
Abp. <i>Archbishop.</i>	Ex. <i>Exodus, Exposition.</i>
Acc^t. <i>Account.</i>	Fr. <i>France.</i>
A. D. or } Anno Domini, i. e. in An. Dom. } the Year of our Lord.	F. R. S. <i>Fellow of the Royal So-</i> <i>ciety.</i>
Adm^l. <i>Admiral.</i>	Gen^{mo} <i>Generalissimo.</i>
Adm^{rs}. <i>Administrators.</i>	Gent. <i>Gentleman.</i>
A. M. <i>Artium Magister, Master</i> of Arts.	G. R. <i>Georgius Rex, King George.</i>
A. R. <i>Anno Regni, in the Year of</i> the Reign.	Heb. <i>Hebrew.</i>
Ast. P. G. <i>Professor of Astronomy</i> <i>at Gresham College.</i>	Hier. <i>Hieronymus, i. e. Jerom.</i>
B. A. <i>See A. B.</i>	Hund. <i>Hundred.</i>
Bar. <i>Baronet.</i>	Id. <i>Idem, the same.</i>
B. D. <i>Batchelor of Divinity.</i>	i. e. <i>Id est, that is.</i>
Bp. <i>Bishop.</i>	I. H. S. <i>Iesus Hominum Salvator,</i> <i>Iesus the Saviour of Men.</i>
B. V. M. <i>Blessed Virgin Mary.</i>	ΙΧΘΥΣ, for <i>Ἰησὺς Χριστὸς Θεὸς Υἱὸς</i> <i>Σωτὴρ, i. e. Jesus Christ, the</i> <i>Son of God, the Saviour.</i>
C. <i>Centum, an Hundred.</i>	Jac. <i>Jacobus, James.</i>
C. C. C. <i>Corpus Christi College.</i>	J. D. <i>Jurum Doctor, i. e. Doctor</i> <i>of Laws.</i>
Cent. <i>Centum, an Hundred.</i>	Jes^t. <i>Jesuit.</i>
Ch. <i>Charles, or Church.</i>	Jn^o. <i>John.</i>
Cl. <i>Clericus, a Clergyman.</i>	K. <i>King.</i>
Cor. <i>Corollary.</i>	K^m. <i>Kingdom.</i>
C. P. S. <i>Custos Privati Sigilli,</i> Keeper of the Privy-Seal.	K^t. <i>Knight.</i>
Cur. <i>Curtius, Curate.</i>	L. <i>Lord, Lake.</i>
D. <i>Duke, Dukedom.</i>	L. or l. <i>Liber, a Book.</i>
D. D. <i>Doctor of Divinity.</i>	Lap. <i>Ladyship.</i>
Deut. <i>Deuteronomy.</i>	Ld. <i>Lord.</i>
Dit. <i>Ditto, the same.</i>	L. D. <i>Lady-Day.</i>
Do. <i>Ditto.</i>	LL. D. <i>Legum Doctor, i. e.</i> <i>Doctor of Laws.</i>
Du^m. <i>Dukedom.</i>	Lp. <i>Lordship.</i>
E. <i>Earl.</i>	Lr. <i>Letter.</i>
Earld. <i>Earldom.</i>	M. <i>Marquis.</i>
E. g. <i>Exempli gratia, for Ex-</i> <i>ample.</i>	M. A. <i>Master of Arts.</i>
Eng. <i>English, England.</i>	Ma. <i>Madam.</i>
Ep. <i>Epistle.</i>	Mat^y. <i>Majesty.</i>
	Math. <i>Mathematician.</i>
	M. D. <i>Medi-</i>

M. D. *Medicinæ Doctor*, i. e. Doctor of Physick.
 M^r. *Master*.
 M^{rs}. *Mistress*.
 MSS. *Manuscripts*.
 M. S. *Memoriæ Sacrum*, i. e. Sacred to the Memory.
 N. *Note*.
 N. B. *Nota bene*, i. e. Mark well.
 N. S. *New Style*.
 O. S. *Old Style*.
 Per Cent. *By the Hundred*.
 Philom. *Philomathes*, a Lover of Learning.
 P. M. G. *Professor of Music at Gresham College*.
 Pr. *Priest*.
 P. S. *Postscript*.
 Q. *Queen, Question*.
 q. *Quasi*, as it were.
 q. d. *Quasi dicat*, as if he should say.
 R. *Rex*, King; or *Regina*, Queen.
 Regt. *Regent*.
 Reg. Prof. *Regius Professor*, i. e. Royal, or King's Professor.
 Rel. *Religion*.
 Rev. *Revelation*.
 Ro. *Romans*.
 Rt. *Right*.
 St. *Saint*.
 Serj. *Serjeant*.
 Serv. *Servant*.
 Sh. *Shire*.
 Sol. *Solution*.
 S^r. *Sir*.
 S. S. T. P. *Sacro-Sanctæ Theologiæ Professor*, a Professor of Divinity.
 T. *Thomas*.
 V. *Virgin*.
 v. *Vide*, i. e. see.
 Viz. *Videlicet*, i. e. that is to say.
 Ul^t. *Ultimate*, the last.

Wp. *Worship*.
 Xⁿ. *Christian*.
 Xt. *Christ*.
 y^e. *The*.
 yⁿ. *Then*.
 y^t. *That*.
 &c. *et*, i. e. and.
 &c. *et cætera*, and the rest.

Numerical Abbreviations,

I. *One Thousand*.
 V. *Five Thousand*.
 X. *Ten Thousand*.
 L. *Fifty Thousand*.
 C. *A Hundred Thousand*.
 CC. *Two Hundred*.
 D or ID. *Five Hundred*.
 DC. *Six Hundred*.
 M. or CI. *A Thousand*.
 ID. *Five Thousand*.
 CCID. *Ten Thousand*.
 IDID. *Fifty Thousand*.
 MDCCXXXVII. *One Thousand Seven Hundred and Thirty Seven*.

Latin WORDS explain'd.

Errata, Errors.
 Corrigenda, Things to be corrected.
 Addenda, Things to be added.
 Mutanda, Things to be alter'd.
 Delenda, Things to be blotted out.
 Pro, For.
 Lege, Read.
 Dele, Blot out, or erase.
 Finis, The End.
 Imprimis, In the first Place.
 Item, Also.
 Memorandum, Somewhat to be remembered.
 Ibid. Ibidem, In the same Place.

Ipso Facto, In very Deed or Fact.

De Facto, Matter of Fact.

De Jure, Of Right.

Probatum est, It is approv'd.

Vi & Armis, By Force and Arms.

Jure Divino, By divine Right.

Alias, Otherwise.

Ipse Dixit, Himself says so.

Sizes of BOOKS.

Folio. A Book of the largest Size,

in which a Sheet makes two Leaves.

4^{to} *Quarto*. That in which a Sheet makes four Leaves.

8^{vo} *Octavo*. Having a Sheet folded into eight Leaves.

12^{mo} *Duodecimo*. Having a Sheet folded into twelve Leaves ; and we call it a Book in *Twelves*.





Of RHETORIC and ORATORY; or the Art of SPEAKING with ELOQUENCE and PERSUASION.

Rhetoric defined; how it differs from Oratory.



RHETORIC is the Art or Faculty of Speaking well and ornamentally on any Subject. Or as *Aristotle* has defined it; It is the Faculty of observing what every Subject affords of Use to Persuasion. This is a general Definition, including equally both *Rhetoric* and *Oratory*. For these two differ only as *Theory* and *Practice*; the Business of a *Rhetorician* being to lay down Rules and Precepts for Speaking elegantly, and that of the *Orator* to use and apply them commodiously in *Practice* to the Purpose of Persuasion.

Rhetoric consisteth of four great Parts. Invention. Disposition.

Elocution.

Pronunciation.

THIS Art doth consist of four great Parts. (1.) *Invention*; which *excogitates* and *finds* out such *Reasons*, *Motives*, and *Arguments* as are adapted to persuade or gain the *Assent* and *Belief* of the *Hearer* or *Reader*. (2.) *Disposition*; which is the proper and most advantageous placing, disposing and ranging the *Arguments* and *Subject-Matters* before invented in a proper and requisite *Order* and *Method*. (3.) *Elocution*; which provides a *Diction* enrich'd and embellish'd with all the *Ornament* of proper *Tropes* and *Figures*; and in which chosen Words are adapted to express the Things invented, with *Force* and *Energy*. (4.) *Pronunciation*; which regards the Delivery of the Discourse or Oration with an agreeable *Modulation* of the *Voice*, and becoming *Gesture* of the *Body*.

I N V E N -

INVENTION, as was said, is the *finding* such Arguments as are proper to persuade, and gain Belief. These Arguments are divided into *Artificial*, and *Inartificial*. The *Former* are the proper Object of the *Invention* of him who writes; the *Latter* he borrows from abroad, and accommodates them to his *Subject*.

Of Invention, the first Part of Rhetoric.

OF *Artificial* Arguments there are three Sorts, (1.) *Reasons* or *syillogistical Argumentations*; which most directly convince the Understanding, and effect Belief. These are derived from *various Topics*; either such as afford an *absolute Certainty*, and then they become *Demonstrations*: Or from *Ratiocination* or *Reasoning* from *Causes*, *Effects*, *Subjects*, *Adjuncts*, *Kind*, *Species*, the *Whole*, the *Part*, and other *logical Topics*: Or lastly, from *Topics* of *Probability* and *Verisimilitude*.

Artificial Arguments of three Sorts. Reasons or Argumentations.

(2.) Those which we may call the *Manners*, and whereby the Orator *ingratiates* himself with the *Audience* or *Reader*, and *conciliates* their *good Opinion* or *Favour*. This is promoted by his own *Manners*, as his *Prudence*, *Wisdom*, *Learning*, *Probity*, *Modesty*, &c. Or the *Manners* of the *Auditors*; as their *Passions*, *Habits*, *Age*, *Fortunes*, and *Stations*; to all which he must have a tender *critical* Regard. Or, lastly, the *Manners* of the *Nation* or *Country*; as *Liberty* in a *Republic*; the *Laws* in a *Democracy*; *Riches* in an *Aristocracy*; and the *Royal Prerogatives* in a *Monarchy*. (3.) The third Kind of Arguments are call'd the *Passions*; their *Design* and *Use* being to *excite* and *move*, or else to *calm* and *compose* the *Passions*; and nothing concerns an *Orator* more than to acquire a nice Judgment and Skill in affecting the *Passions*, and striking them singly as he would. Without the *Pathetic*, even the justest *Reasoning*, though supported by sound Learning, will appear a *cold*, *lifeless*, and *un-affecting* Harangue.

The Manners.

The Passions.

THE *Inartificial* Arguments are not the Effect of the Orator's Art, but he takes them from divers *Topics* elsewhere; as from the *Scriptures*; the *Testimonies* of antient and modern *Authors*; common and received *Opinions*, *Proverbs*, and *Sentences*; from *Oaths*, *Writings*, *Laws*, *Contracts*, *Witnesses*, *Signs* and *Seals*, and abundance of other *Circumstances*, all which an Orator ought to be well acquainted with.

Of Inartificial Arguments.

THE

The Topics of Artificial Arguments, General and Special.

The General of two Sorts; Possible or Impossible. Or Great and Small.

THE *Topics of Artificial Arguments* are either *General* or *Special*: *General Topics* are the *Store-houses of Arguments*, common to all Kinds of Subjects or Causes; and are by the Learned *Vossius* determined to be *two* in Number, viz. (1.) *Possible* or *Impossible*; for whether we design to persuade or dissuade, to praise or dispraise, accuse or defend, we must always prove the *Fact* or *Subject* has been, or is, *Possible* or *Impossible* to be. (2.) *Great* and *Small* is the other Title of *General Topics*; and to this all Comparisons relate. As when we shew, *this* is more or less *beneficial* or *pernicious*, more *useful* or *unuseful*, more *honourable* or *dishonourable*, more *just* and *equitable*, or *unjust* and *illegal*, than *that*.

Special Topics.

Special Topics are such *Seats* or *Heads of Arguments* as are proper to *particular Subjects* and *Causes*; and for that Reason vary according to their *Variety*.

Of the three Kinds of Subjects.

The Demonstrative. The Deliberative.

The Judicial. The Purpose and End of each.

OF *Causes* or *Subjects of Oratory*, there are *three* Kinds. (1.) The *Demonstrative*; (2.) The *Deliberative*; and (3.) The *Judicial*. The *Demonstrative* Kind praises or dispraises; the *Deliberative* persuades or dissuades; and the *Judicial* accuses or defends. And all a Man can speak or write must be recommended to the Hearer or Reader in one of these three Ways. The *Purpose* of the *Demonstrative* Kind, is *Honour* or *Shame*; and its *End*, to render the *Person*, or *Thing*, *lovely* or *detestable*. The *Purpose* of the *Deliberative* is *Profit* and *Advantage*, and the *contrary*; and its *End*, *Hope* or *Fear*. The *Judicial* Kind pursues *Equity* and *Right*; and hath in View, *Clemency* or *Severity*.

Orations of the Demonstrative Kind, threefold.

Orations or *Discourses* of the *Demonstrative* Kind, or such as *praise* or *dispraise*, are of three several Kinds; as (1.) Those which concern *Persons*, *real* or *imaginary*; (2.) Those which are conversant about *Facts* or *Deeds*; and (3.) Those which relate to *Things*.

Those of Persons.

The Subjects of this Kind of Praise or Dispraise.

Oratorical Discourses concerning the *Praise* or *Dispraise* of *Persons*, are spent chiefly on the following *Topics*, viz. (1.) On considering and expatiating on some very remarkable and distinguishing *Circumstances* of the *Person*; as the *Prodigies*, *Prophecies*, *Oracles*, &c. (if any) which preceded his *Birth*: The notable

Adjuncts of his Birth, if any: His *Native Country*: His *Stock* or *Lineage*: His *Sex*: His *Education*, *Learning*, *Studies*, *Counsels*, and *Exploits*, and all other *Circumstances* attending every Stage of his Life: His *Death*, the *Manner* and *Events* thereof: The *Funeral Solemnities*, &c. (2.) The next *Topic* of *Discourse* is the *various Fortune* of the Person, in respect of *Riches*, *Poverty*, *Honours* and *Dignity*: His *Friends*, *Relatives*, and *Children*. (3.) The *Accidents* of his *Body*; as *Health*, *Strength*, *Robustness*, *Activity*, *Beauty*, and *Form*. (4.) The *Endowments* and *Qualities* of his *Mind*; as *Wit*, *Ingenuity*, *Judgment*, *Docility*, *Memory*, &c. (5.) His *Manners* and *Habits*, with regard to *Virtue* and *Vice*; where every *Virtue* conspicuous in his Life is taken Notice of, and recommended; and every *Vicious Habit* *disprais'd* and *declaim'd*. In all *Declamations* of this sort, Care should be taken, that we do not ascribe to the Person *undue Praise*; nor such as is common to many, and not singularly his own; and lastly, that we dwell not too long on the *Praises* of light and trifling Things.

THE *second Sort* of *Declamations* of the *Demonstrative Kind*, are those which relate to the *Praise* of *Facts* and *Deeds*. The *Topics* whence *Materials* for amplifying and setting off this Kind of Subject are deduced, are such as these; (1.) That the *Action* was *honourable*, and *becoming* the Person. (2.) That it was *legal*, and *consentaneous* to the *Laws*. (3.) That it was *just* and *righteous* with respect to *God* and *Man*. (4.) That it was *glorious*, and procur'd the Author *Fame* and *Reputation*. (5.) That it was *useful* in procuring some very *considerable Good*, or in averting some imminent and dangerous *Evil*. (6.) That it was an *Enterprize* of *Difficulty*, and attended with *great Labour* and *Expence*, and *atchiev'd* in a *short Time*. (7.) The *Circumstances* of the Person, and *Manner* of the *Action*; as that he did it either *first*, or *alone*, or with *few*, or *principally*; or at a most necessary *Exigence* of *Time*, *Place*, or *Juncture* of *Affairs*; or *often*; or that the *Action* has a *Regard* to the *Honour* and *Benefit* of the *City* and *Country*; or that thereby new *Honours*, *Dignity*, *Power*, &c. first accrued to his *Country*. All which it behoves the *Orator* to examine and apply.

Those which
relate to
Facts, and the
Topics peculiar
thereto.

Those which relate to Things, as Places.

THE *third Subject of Praise* are *Things*; of which we may reckon *two Sorts*. (1.) *Places*; as *Regions* or *Countries*, and *Cities*; concerning which we observe their *Origin*, *Antiquity*, *Extent*, *Situation*, *Fertility*, *Produce*, the *Inhabitants*, the *Founders* of *Cities*, their *Governors* and *Rulers*, the *Laws*; and every other thing which may contribute any thing of *National* or *Civil Glory*. (2.) The *Habits* of the *Mind*, the *Manners*, and the various *Acquisitions* of *Learning* and *Science*, when in *themselves* and *absolutely* consider'd. These afford a *copious Theme*; nothing being more obviously *Praise-worthy* than *Virtue* and *Learning*; and *Vice* and *Ignorance* claim the greatest *Abhorrence* among *detestable Things*.

Habits of the Mind.

Of the Deliberative Kind of Subjects or Causes, which persuade or dissuade.

THE *second Kind of Discourse* or *Subject of Oratory*, is the *Deliberative*, or that which *persuades* or *dissuades*. When the *Orator* enters on a *Subject* or *Discourse* of this kind, he must well consider every thing that may render the *Subject Matter* *eligible* or *odious* to the *Audience*; and scrutinize every *Topic* from whence *Motives*, *Reasons* and *Arguments* may be drawn to effect the same.

The Subject Matter thereof, and its several Kinds.

THE *Subject* or *Matter* of these *Deliberative Orations*, are all *Things* which *happen*, and are *posited* in our *Power*, whether of a *private* or *public Capacity*. Those *Subjects* which have regard to a *public Capacity*, are (1.) *Funds*, *Revenues*, and *pecuniary Matters*. (2.) *Peace* or *War*. (3.) *Garrisons* or *Forces*, which are the *Defence* of *Countries*. (4.) *Trade* and *Commerce* of all *Sorts*. (5.) The *Proposal* of *Laws* to be *establish'd* or *abrogated*. *Subjects* of a *private Concernment* are whatever may be of *Advantage* or *Detriment* to *Particulars*.

The Topics of Arguments.

THE *Topics* from which *Motives*, *Reasons* and *Arguments* are to be drawn under this second *Great Part*, are counted these eight. (1.) The *Honourable*; which it borrows from the foregoing *Demonstrative Kind*. (2.) The *Profitable* or *Beneficial*; which is peculiar to this Kind. (3.) The *Necessary*; that it cannot be otherwise, or without which we cannot be safe. (4.) The *Delightful*; that it conduces to the *Pleasure* and *Delectation* of the *Body* or *Mind*, or of both. (5.) The *Possible*; that it may be easily done: This it takes from the foregoing *general Heads*. (6.) The

(6.) The *Rightful* or *Legal*, which it borrows from the next judicial Kind. (7.) The *Event*; the Advantage of which is argued by way of *Dilemma*; let the Matter fall as it will, we shall obtain the *Benefit* and *Glory* intended. (8.) *Dialectical*, or those borrow'd of its Sister-Science *Logic*; when we reason from the *Subject* itself; the *Adjuncts*; the *Effects*; the *antecedent*, *present*, and *subsequent Circumstances*; *Comparison* from the *greater*, the *lesser*, and its *contrary*; from *Testimony*; and above all other *Topics*, most *powerfully* and *efficaciously* from *Examples*, when they are very *apposite* and *congruous*. But then Care should be taken, that they do not wholly engross the *Oration*.

THE last Kind of Subject of the *Oratorical Art* is the *Judicial* or *Juridicial*, whose *Province* it is to accuse or defend; and *Heads* or *Topics* of *Arguments* or *Proofs* in this vary according to the Variety of the *State* of the *Cause* which is the *Subject* of our *Accusation* or *Defence*. There are four *States*. (1.) The *Conjectural State*, which enquires whether the *Fact* or *Case* be so, or not. (2.) The *Definitive State*, which enquireth of what *Denomination* the *Matter* is. (3.) The *State of Quality*, which examines the *Nature* of the *Cause*; and (4.) The *State of Quantity*, which is concern'd about the *Magnitude* of the *Crime* or *Fact*. Every *Speech* or *Oration* of this *judicial Kind*, has one or more of these four *States*.

THE *State of Conjecture* has three *Topics* to consult for *Argument* and *Proof*. (1.) The *Will*; which contains the *impulsive Cause* or *Motives*; as the *Passions* and *Affections*, viz. *Anger*, *Hatred*, *Envy*, *Avarice*, &c. Or, *Ratiocination*, i. e. Reasoning from *Hope* of Advantage or *Fear* of Evil, &c. (2.) The *Faculty* or *Power* of doing the *Fact*; and hereto relates the *Occasion*, *Strength* of Body, *Inclination*, *Hopes* of concealing the *Matter*, or *Impunity*, with various *Circumstances* of the *Matter*, as *Time*, *Place*, &c. (3.) The *Signs* or *Tokens* of the *Thing*; of which some precede, some attend, and some follow the *Fact*; as *absconding*, *Trepidation* or *shaking*, *stammering Speech*, *Dejection* or *Confusion* in the *Countenance*, &c.

The Definitive State.

IN the *Definitive State*, or that in which we enquire by *what Name* to call the Fact, we must define according to the *genuine* and *common Sense* and *Force* of the Word; and confirm our own *Definition*, and confute that of the *Adversary*. As when a *Thief* shall alledge, that indeed he did *take*, but not *steal* such or such Goods; or, that he did *steal*, but it was not *Sacrilege*; or a *Person*, that he did *strike* another, but it was no *Assault* and *Battery*, &c. In all such Cases the Nature of the Fact must be *defined*, and the *Adversary* confuted on that Head, by a Confirmation of your own Definition.

The State of Quality.
Negotial.

THE *State of Quality*, or that which enquires into the Nature of the Fact, *Crime*, or *Cause*, is *two-fold*. (1.) *Negotial*, or that which *negotiates* Affairs which *are to come*, which therefore belong to the *deliberative Subject* before treated of; or, (2.) *Juridicial*, and is therefore proper to this Head. This again is subdivided into *Rational* or *Legal*. The *Rational* also is either *Absolute*, as when we simply defend the Fact, and assert it *laudably done*, and that in respect of *Nature*, *Law*, *Custom*, *Right*, *Equity*, *Covenant*, &c. or *Assumptive*, which is when the Defence being weak, is supported by something *foreign to* or *assumed* out of the Cause; as (1.) By *Comparison*, when we shew, that *one of two* Things was necessary to be done, and that *this* was more just and eligible than the other. (2.) By *Relation*, when we throw the Fault on him who has receiv'd the Injury. (3.) By *Removing*, which is when we throw the Fault on some other *Person* or *Thing* not subject to the Court, or its *Jurisdiction*; as on the Law. (4.) By *Concession*; which is either by *Purgation*; when we defend not the Fact, but the *Will* and *Intention*; and say it happen'd *purely through Necessity*, *Fortune*, *Ignorance*, or *Imprudence*: Or *Deprecation*; when we plead *Guilty*, and intreat *Pity* and *Mercy*.

Of the Legal State.

THE *Legal State* is conversant about the *Sense* of the *Laws*, *Statutes*, and *written Authorities*; and the *Nature* of the *Crime* is thereby *scrutiniz'd*; and this Kind hath *five Species*: As (1.) The *Contrariety of the Law*; when it is either contrary to itself, or some other Law. (2.) The *written Letter*, and *Intention*, when

when the *Will* of the Writer seems to disagree with the *Letter*; and here *Equity* and the Rigour of the Law contend. (3.) *Ratiocination*; when from what is written, we gather another Thing that is *not written*, because founded on the same Reason. (4.) The *Ambiguity of the Discourse*; which arises from the various Meaning of the Word, *dubious Accent*, *Division of the Diction*, &c. (5.) *Translation*; when we except against the *Accuser*, the *Judge*, the *Place*, the *Time*, the *Illegality of the Indictment*, &c. and therefore desire it may be alter'd and changed.

THE *State of Quantity*, or that which enquires into the *Magnitude* or *Greatness* of the *Crime*, examines and informs us which are the *greatest* and most *heinous Injuries*, and which are the *least*. They are shewn to be *great*, (1.) In respect of the *slight Grounds* or *Provocation*. (2.) The great *Detriment* which follows in Consequence thereof. (3.) Or the *Circumstances of the Sufferer*, as that he was a Man of *great Merit*, *Name*, &c. and that the Damage is *irreparable*. (4.) Or of the *Agent*; as that he was the *first*, the *only one* who did it; or with a *few*, or *often*, &c. (5.) In respect of the *Adjuncts*; as if the Injury was done *designedly*; if it proceeded from an ungrateful Mind; if it be *complicated* of many *particular Injuries*, &c. (6.) In regard of the Law which is *violated*; as the Law of *Nature*, the Law of the *Land*, a *Municipal Law*, &c. the *Violation* of all which is greater or less *respectively*. Having thus given a *cursorry View* of the first Part of the Art of *Rhetoric*, *Invention*; we proceed to do the like of the second great Part, call'd

The State of Quantity.

DISPOSITION; this is a very important *Of the second Division*, and ought to be perfectly master'd by an *great Part*, Orator: For though we may sometimes observe a very *Disposition*, notable *Faculty of Invention* and *Utterance*, even among the *Vulgar* and *Barbarous*; yet the Art of *disposing* the Matter invented, *aptly*, *commodiously*, *variously*, and in a *requisite and genuine Method*, is granted only to the *Learned* and *Skilful*.

THERE are, by some, reckon'd *four*, by some *six* *Its several general Parts of Disposition*. (1.) The *Exordium*, or *Parts or Subdivisions*, *Beginning* or *Opening of the Discourse*. (2.) The *Narration*. (3.) The *Proposition*. (4.) The *Confirmation*.

mation. (5.) *Confutation.* (6.) *The Peroration or Conclusion.* This is said to be the *Natural Order* of the Parts of an *Oration*; but when the *Nature* and *Cause* requires us to depart therefrom, and chuse some other, this latter is said to be *Artificial*.

The Exordium, or the Beginnings of Orations, what they should be, and effect.

In an honourable Cause.

In a dishonourable one.

In a dubious or doubtful Cause.

If obscure and difficult.

Of the Narration, and its Properties.

IN the *Exordium* or *Beginning* of the Discourse, the *Orator* sets forth the *Aim* and *Scope* of what he has to say, and then prepares the Minds of the Hearers for due Attention to the Sequel. If the *Cause* be *honourable*, then the *Benevolence*, *Attention*, and *Docility* of the Hearers are naturally supposed ready and prepar'd, without any *Artifice* necessary to obtain them.

IN a *dishonourable Cause*, we must use a Method of *Insinuation*, to *ingratiate* ourselves with the *Audience*, and thus subtilly conciliate to us a patient *Hearing*.

If the *Cause* be *dubious* or *doubtful*, the *Orator* prudently proceeds from that Face of it, which is *best* and *honourable*. If the *Cause* be *mean* and *low*, it ought to be *elevated* and *magnified* to the Hearers, by mentioning some *considerable Advantages*, and *honourable Circumstances*, which will *attend* or *follow* it, and so render it worthy their *Regard* and *Attention*. In

an *obscure* and *difficult Cause*, he must *artfully* insinuate into their Minds a *Desire* and *Willingness* to be *inform'd* and *instructed*. The Conduct is not the same in the *Exordium* of all Discourses, but is deduced from the *Topics* of *Arguments* proper thereto, whether it be of the *Deliberative*, *Demonstrative*, or the *Judicial* Kind.

THE *Narration* is a *Recital* of the Things *done*, or that seem to be *done*, adapted to *Persuasion*. This is not always a necessary Part, and has little Place in the *Deliberative Subject*, as also in the *Judicial*, except when we do not agree with the Adversary about the Manner of the Fact. The *Narration* ought to be (1.) *Perspicuous*; in proper and usual Words, that it may be understood. (2.) *Likely* or *probable*, and therefore agreeable to Nature, Law, and the Manners of the Person; and also to the common *Rumour* and *Opinion*, that it may be believed. (3.) It must be *pleasant* and *delightful*, as containing Things *new*, *unexpected*, *great*, *weighty*, and happy Events. (4.) It should be *short* and *brief*, the Matter not far-fetch'd, nor foreign to the Kind of Subject, yet so compleat

that

that nothing be wanting. The *Narration* also must be shorter for the *Defendant* than *Plaintiff*. After the *Narration*, sometimes a Place is allowed to a moderate *Digression*, when it can be *aptly* and *opportune-ly* made, which must be either for *Amplification* or *moving the Passions*.

THE *Proposition* is that Part of the *Discourse* where-
in the *Orator* proposes the *Sum* of the whole *Speech* or
Oration; and if the Cause hath many *States*, the *Pro-
position* will be either (1.) *Simple*; wherein the *Sum*
and *State* of the whole Cause is briefly propounded.
(2.) *Separation*; this has Place only in the *Judicial*
State, wherein we lay open in *what we agree* with our
Adversary, and what yet remains in *Controversy*.
(3.) *Partition*; this is used in all *Kinds of Subjects*;
therein we enumerate the several *Heads* and *Kinds* of
Things of which we are about to speak, and in the
same Order as we intend to proceed. The Beauty
of the *Partition* is, that it be *full, distinct, plain, cer-
tain*, and *short*, containing not more than *three*, or,
at most, than *four Parts*.

Of the *Propo-
sition* and its
Particulars.

THE *Heads* of *Discourse* being distinctly proposed,
the *Orator* next proceeds to treat of them according
to their *Nature* and *Kind*; and his main Design is
here the *Confirmation* of his *Position* or *Propositions*;
to that end he thoroughly scans every *Topic* of *Reason-
ing* or *Argumentation*; and having made a *Collection*
which he judges sufficient for his Purpose, he places
them in the most advantageous Manner, and applies
them with all the Force of Art and Judgment to esta-
blish and confirm what he has advanced and asserted.
In his Conduct in this Part of the *Oration*, he ob-
serves the following *general Rules*. (1.) If the Mat-
ter be capable of *abundant Proof* and *Reasoning*, and
his *Topics* all *pregnant* with *Arguments*, yet he prudent-
ly avoids *Luxury* even in *Reason*, and chuses the fewest
that will suffice; since nothing is more *silly* and *irk-
some* than to overdo any thing. (2.) If the Cause be
barren in *Topics*, and those too *infertile* ones, he uses
the greatest *Diligence*, *Parcimony*, and *Art*, to *improve*
and make the *best* of them. And therefore (3.) he
places in the Front the *strongest Arguments*, when the
Minds of the *Hearers* are fir'd with the greatest *Ex-
pectation* and *Attention*. The *Middle* is employ'd with

Of *Confirma-
tion*, and
what is obser-
vable relating
thereto.

Arguments of the weaker Sort, that their Number (instead of Force) may render them of seeming *Importance*. Lastly, he makes a Reserve of some of the most forcible Reasons to bring up the Rear; being conscious that what the Audience hear last, makes the greatest Impression. (4.) If the Strength of the Cause depends on an *Argument* that is alien to it, he forthwith endeavours to naturalize it, and make it appear proper thereto. (5.) The *Bulwarks* of his Cause are chiefly those *Argumentations* drawn from just *Syllogisms*, *Enthymems*, *Inductions*, and *Examples*; the Nature and Use of all which you'll find explain'd in the next Chapter of Logic.

Of Confutation, and the Method thereof.

CONFUTATION of course follows Confirmation: For the *Orator* is not supposed to have done his Business by confirming his own *Doctrine only*; but 'tis expected he should also confute his Adversary's Notions, and shew them false or more unreasonable than his own. In order to this, (1.) He observes that his *Antagonist* has taken for granted, what is not proved. (2.) Or, that he has assum'd from true, Things really false. (3.) Or, that he infers what is not, or more than is contain'd in the *Argument*, if granted. (4.) Or, that his Arguments are foreign to the Cause, and so of no Force. (5.) Or, he retorts the Force of his own Reasons on himself, and refels him with his own Weapons. (6.) Or, he advances Arguments equally strong, and, if he can, of more Force and Energy than his *Enemy's*. (7.) Or, he will artfully debase, laugh at, or undervalue his *Opponent's Arguments*; tho' this be not a fair and honourable Way of Confuting. (8.) He contrives how he may first invalidate and demolish the strongest Pillars of his Adversary's Hold, that so the whole Fabric may fall at once upon him, and crush him.

The Peroration or Conclusion, and its Parts.
Anacephalæosis.

THE *Peroration*, *Epilogue*, or *Conclusion*, is the last and finishing Part of *Disposition*. The *Conclusion* has generally Parts: (1.) *Anacephalæosis* or *Recapitulation*, or *Enumeration* of the principal Arguments, in which the Strength of the Cause doth mainly consist, and ought therefore to be fixed in the Minds of the Hearers; but Care must be taken that they be repeated with Weight and Energy, and the Expressions and Figures varied, that they may not seem a mere Crambe

recollata.

recōcta. (2.) The other Part is the *Pathopœia*, or *Pathopœia*. Method of *Moving the Affections*; to this End, the most powerful and affecting Strains of *Eloquence* must be used, and all the *Art and Judgment* the *Orator* is Master of must here be employ'd, to move and excite the *Passions*. In short, all the *Fountains of Oratory* must here be open'd, and the *Fets d'Eloquence* made to play upon the *Reason and Affections* of the Audience; yet this Part must always be so managed, as never to want *Brevity and Vehemence*.

ELOCUTION, or the *Language or Diction*, *Of the third great Part, Elocution, and its Parts.* is the third great Part of *Rhetoric or Oratory*. This is the *noble Part* which furnishes *proper and graceful Words*, and adapts them to the just *Expression* of the Things we have *invented*. It consists therefore of *three Parts*; (1.) *Elegance*, the Foundation of this *Structure*. (2.) *Composition*, which is the *Compages* thereof. (3.) *Dignity*; this *embellishes* the Whole with the *Ornaments of Tropes and Figures*, and gives it *Grace and Solemnity*.

ELEGANCE consists of two Parts, (1.) *Purity of Language*, which is, that the Words be *genuine or free*, of our *Tongue*, not *foreign*; that they are in use among those who understand the *Language* well; that they be not *obsolete*, or out of *use*; that they be not *low and mean*, more proper for the *Mob*, or *Rustic*, than an *Orator*. The *Phraseology* should be strictly *grammatical*, to avoid *Rusticity and Solecism*. (2.) *Perspicuity*; this is a most important *Point*, and is maintained by *plain and usual Words*; such as are free from *Ambiguity*, or various *Meanings*; such as are well understood, not *obsolete* or too *learned*; by avoiding too long, and too short and abrupt *Sentences*; and keeping to a *uniform Method of Discourse*, wherein the *Expressions* are duly connected, the *Dependence* evident, and the *Order of Persons, Times and Things*, *natural and unconfused*. In short, *Elegance* is gain'd by reading the *best and most polite Authors*, by keeping the *best Company*, and by *Study and Practice*. *Of Elegance, and wherein it consisteth. Purity. Perspicuity.*

COMPOSITION respects the *Juncture or Connection, Order, Period, and Number*, of the *Syllables, Words, and Sentences* of a *Discourse*. (1.) The *Connection of Syllables and Words* renders the Style *soft and smooth, gentle and flowing, sweet and sonorous*: To this *Of Composition and its Parts. Connection.*

- this End the *Collifion*, or *Meeting*, of too many *Vowels* or *Confonants* muft be avoided ; and if a Word ends in a *Confonant*, the following fhould begin with a *Vowel*. (2.) As to *Order*, we fhould always proceed from the *Low* and *Humble*, to the *Grave* and *Noble* ; that we give *Precedence* to thofe Things which are *firft* in *Nature* or *Dignity*, as *Day* and *Night*, *Men* and *Women*, *East* and *West*, &c. (3.) What relates to the *Periods* has been already treated of, at the End of the *Chapter* on *Grammar*. (4.) And as for *Number*, that relating to the *Meafure* or *Quantity* of *Syllables*, is of a *Poetical* *Confideration*, and muft be learned from that *Art* in the *Chapter* next but one following.
- Order.**
- Period.**
- Number.**
- Of Dignity, what it is.** DIGNITY is that Part of *Elocution*, which teaches to fpeak *floridly* and *ornamentally*, with *Tropes* and *Figures*, and very *apt* and *becomingly*.
- Tropes, what.** A *Trope* regards *Words*, and is an *elegant* *Turning* of a Word from its *proper* and *genuine* Signification to another. In *Tropes* we may confider, (1.) The *Species* of them, or proper *Tropes*, which are four, viz. *Metaphor*, *Metonymy*, *Synecdoche*, and *Irony*. (2.)
- The Species.** The *Affections* of *Tropes*, or fuch *Qualities* as affect the aforefaid *Tropes* with an additional *Grace* and *Ornament* : Thefe are four, viz. *Catachrefis*, *Hyperbole*, *Metalepfis*, and *Allegory*. (3.) Some other Changes of Words, like to *Tropes*, but which are not properly fuch. Thefe are ten, viz. *Antonomafia*, *Litotes*, *Onomatopœia*, *Antiphrasis*, *Charientifm*, *Afteifm*, *Diafyrmus*, *Sarcasm*, *Parœmia* or *Proverb*, and *Ænigma*. Of all thefe I fhall give a *Defnition* and *Instances*, as I find them in *Verfe*, in a little Book, call'd *Tropoſchematology*, with fmall *Variation*.
- The Affections of Tropes.**
- Improper Tropes.**

A Metaphor or Translation. In Place of proper Words, a *Metaphor* Puts the *Reſemblance*. How the *Waves* do roar ! The *Fields* do laugh and ſing : Did you behold Their light'ning Steel ? *Virtue* now waxeth cold.

A Metonymy, or a changing the Name of one Thing for another. A *Metonymy* does new Names impoſe. Th' *Inventor's* ; plump and ruddy *Bacchus* grows. Or th' *Author's* ; lofty *Statius*, *Virgil* read. Or th' *Instrument* ; his *Tongue* defends his Head. Or th' *Matter* whence 'tis moulded ; he ſhall kneel

An

An humble Suitor to thy conqu'ring Steel.
Or the *Effect*; pale Famine and cold Death
Attend on bloody War's *infectious* Breath.
The *Subject* that contains; we surfeited
On many *Dishes* lately, now we're fed
With *England's* Tears; our *Pulpits* long exclaim'd
Against those *Days*, yet ne'er a Heart was tam'd.
Or th' *Adjunct* that attends: Now you may see
The *Mace* is coming. What an *Age* are we!

Synecdoche a Thing complete confounds
With *Part* on't: Th' *Orator* with *Tropes* abounds:
Or takes the *Part* for *All*: So many *Springs*
I've dwelt within this *Roof*. Dear *Soul*, she sings.

*Synecdoche, or
Comprehension.*

An *Irony* speaks one Thing, means another.
Well done good Guide: Kind tender-hearted Brother.

An Irony.

Catachresis the Sense of Words does strain.
You threaten fair! Winds ride upon the Main.

Catachresis.

Hyperbole soars * high, or creeps too || low:
He touch'd the * *Skies*: A || *Snail* don't crawl so slow.

*An Hyperbole
is twofold,
Meiosis, ||
Auxesis. *
Metalepsis.*

Two *Tropes* in one does *Metalepsis* yield.
The Clouds drop *Fatness*: *Tyber* won the Field.

An *Allegory* useth many *Tropes*.
I've past the *Shoals*, now fair *Gales* spread my *Hopes*.

An Allegory.

Antonomasy gives new *Names*. The *Poet*
Chanted *Pelides'* Worth, that Men might know it.

Antonomasy.

Litotes does more Sense than Words include.
I'll not refuse your *Gifts*: He's not so rude.

Litotes.

Onomatopœia coins a Word from's Sound.
The *Flies* do buzz: *Tantarra's* fill the Round.

Onomatopœia.

Antiphrasis makes Words to disagree
From Sense. The *Speaker's Dumb*: The * *Euxine* Sea.

*Antiphrasis.
* i. e. Hospi-
table.*

Charientism, for harsh, soft Words does use.
Be not so angry: Heaven send better News!

Charientism.

Asteism

- Aspeism.* *Aspeism* is a witty Jest. Who knew it?
The Woman's old, yet ne'er a Tooth to shew it.
- Diasyrmus.* A living Enemy *Diasyrmus* jeers.
This Raven sings: The Music of the Spheres.
- Sarcasm.* *Sarcasm* stings the *Flesh*, with Jeers does kill.
Cyrus, thy Thirst was Blood; now drink thy fill.
- Paræmia.* *Paræmia's* but a Proverb. 'Tis too late
After the Steed is stol'n to shut the Gate.
- Ænigma.* *Ænigma* is a Riddle: What 'tis, explain:
Four-legg'd i'th' Morn; Noon, two; Night, three: A
[Man.]

Of the Figures of Words and Sentences. HAVING pass'd thro' the *Tropes*, we next proceed to the *Figures* or *Finery* of *Speech*; of these, some regard *Words*, others *Sentences*. The *Figures* of *Words* are fifteen; the first eleven are of the *same Sound*, the other four of a *like Sound*.

- Antanaclassis.* *Antanaclassis* in *one Word* does hide
 Two Senses. Come on, if we *ride*, let's *ride*.
- Ploce.* *Ploce* repeats a *proper Name* in Sense
 That's *common*. *Irus* grew an *Irus* hence.
- Anaphora.* *Anaphora* gives *more Sentences one Head*.
Peace crowns our *Life*: *Peace* does our *Plenty* breed.
- Epistrophe.* *Epistrophe* concludes alike. Be wise
 In your *Advice*: Take time in your *Advice*.
- Symploce.* *Symploce* joins both the two last together,
 And from both join'd makes up itself another.
Justice came down from Heaven to view the *Earth*:
Justice climb'd back to Heaven, and left the *Earth*.
- Epanalepsis.* *Epanalepsis* ends as it begins.
Sins stain thy *beauteous Soul*, forsake thy *Sins*.
- Anadiplosis.* *Anadiplosis* ends the former *Line*
 With what the next begins. 'Tis the first Sign

Of

Of *Virtue*, if it flies the Steps of *Vice* ;
Vice, which to Mischief does the Soul entice.

Epanodos inverts what it repeats.

Meat's for the *Belly*, the *Belly* not for *Meats*.
 He bow'd, he fell : *Bowing*, he fell down dead ;
 He there lay still, where he bow'd down his Head.

Epanodos.

The same Word *Epizeuxis* twice repeats.

Ah poor, poor Swain ! *Me*, wretched *me*, he beats !

Epizeuxis.

Climax ascends by Steps. *Folly* breeds *Laughter*,
Laughter Disdain, *Disdain* makes *Shame* her Daughter.

Climax.

In *Polyptoton* Words the Cases change.
 For *Knave* to catch a *Knave* is nothing strange.

Polyptoton.

Paregmenon does Words deriv'd recite.
 Of *Friendship* friendly to my *Friend* I write.

Paregmenon.

Paronomasia alludes to th' Meaning where
 The Letters change. Not *Friends* but *Fiends* were
 [here.

Paronomasia.

Homoioteleuton with like Sounds does end.
Amend, to *Virtue bend*, and love thy *Friend*.

*Homoioteleu-
ton.*

One Syllable twice *Parechesis* sets.
 Our *Mis-chief* chief-ly *Li-berty* begets.

Parechesis.

WE come now to the *Figures of Sentences*, and
 they are of four Kinds, viz. (1.) Such which pertain
 to the *Explication*. (2.) To *Probation* or *Confirmation*.
 (3.) To *Amplification*. And (4.) To *Arguments*
 proper to excite the *Passions*. Of the first Sort are
 the following Six.

*Of the Figures
of Sentences.*

Hypotyposis to your Eye contracts
Things, *Places*, *Persons*, *Times*, *Affections*, *Acts*.

Hypotyposis.

Paradiastole crossing does explain.
 They change *their Soil*, not *Minds*, who plow the
 [Main.

Paradiastole.

Antimetabole

- Antimetabole.* *Antimetabole* puts chang'd Words agen.
Kings before Men are Gods, 'fore Gods are Men.
- Enantiosis.* *Enantiosis* poiseth different Things.
Money Care, Truth Foes, and Flatt'ry Friendship
[brings:
- Synœceiosis.* *Synœceiosis* to one Subject gives
Two Contraries. He's Dead, ev'n whilst he lives.
- Oxymoron.* In *Oxymoron* Contradictions meet.
The Honey-Gall of Love, this Bitter-sweet.
- Figures of Probation.* Figures pertaining to Probation or Confirmation, are the following Four.
- Ætiology.* *Ætiology* gives every Theme a Reason.
Speak little: Who speaks much, speaks out of Season.
- Inversion.* *Inversion* makes the Adversary's Plea
Our best Defence. Sir, You'd not say me nay,
But that I am a Stranger. (Answer) Pray forbear,
They who know more of You, trust less, I fear.
- Prolepsis.* *Prolepsis* your Objections doth prevent
With Answers. But, you'll say, Pleasures were sent
To wing the Soul: True, yet she'll soar so high
On those false Wings she'll scorch herself and die.
- Epitrope.* *Epitrope* gives Leave, or else dissembles.
Go take your Course: I will not stop your Rambles.
- Figures of Amplification.* Now follow the Figures of Amplification.
- Incrementum.* From low Beginnings *Incrementum* rises
T' a loftier Pitch. Could Hell forbear these Vices,
Nor gape to swallow them? Could th' Earth endure
Their Footsteps? Is the Air grown so impure
To give them Breath? Can Heaven behold their Riot
With patient Eyes? Or can the Gods be quiet?
- Synonymy.* *Synonymies* with divers Words declare
One Matter. He's alive, he breathes the Air.
- Syna-

Synathroesm heaps divers Things together.
Thief, Taylor, Miller, Weaver; chuse you whether.

Synathroesm!

Periphrasis a copious Strain induces
T' express one Word. * *The Father of the Muses.*

Periphrasis.
* For Homer.

Hendyades puts two Substantives for one.
He is advanc'd to Ivory and a Throne.

Hendyades.

What *Erotefis* knows full well, it asks.
Was ever Virtue put to harder Tasks?

Erotefis.

The Mind's Intent is rais'd by *Exclamation.*
Alas the Day! Oh most corrupted Nation!

Exclamation!

Epiphonema makes a final Clause.
Such Care's requir'd, that Men observe the Laws.

Epiphonema.

Epanorthosis does Words past correct.
Most brave! brave, said I? most heroic Act!

Epanorthosis.

Aposiopesis leaves imperfect Sense.
I'll teach you—— yet I would avoid Offence.

Aposiopesis.

Anacænosis tries another's Mind.
But were you here, what Comfort would you find?

Anacænosis.

In Words and Actions *Aporia* doubts.
What then? Shall I reply, or take her Flouts?

Aporia.

Prosopopæia feigneth Things to speak.
The Country cries, Why should your Discord break
My long-continu'd Joys? O Heavens, hear
My Complaints! Grim Death will call him hence, I fear.

Prosopopæia.

Apostrophe turns from the first Discourse.
She's dead; Did e'er the Fates yet feel Remorse?

Apostrophe.

I shall now add some Grammatical Figures of Orthography, put into Verse also by the same ingenious Author. Of these are the following eight.

Grammatical
Figures of
Orthography.

Prosthesis

- Prosthesis.* *Prosthesis* adds to th' first Part of a Word.
Yclad in Armour, and begirt with Sword.
- Aphæresis.* *Aphæresis* takes away what t'other gave.
He'll speak you fair, yet 'truth he's but a Knave.
- Epenthesis.* *Epenthesis* does to the Middle add.
Go, *Black-a-moor*, and curse the daring Lad.
- Syncope.* *Syncope* from the Middle steals a Cut.
Thus *Presbyter* in *Prester* close is shut.
- Paragoge.* By *Paragoge* something's put to th' End.
Thus (*e*) abounds in *lovee*, *learne*, *feare*, and *friende*.
- Apocope.* *Apocope* for Haste the End doth spill.
Thus *Thomas* we call *Tom*, and *William Will*.
- Antithesis.* *Antithesis* changes Vowels th'one for t'other.
A *stony* Heart *two* Brethren dear to smother.
- Metathesis.* *Metathesis* the Letter's Place in Words
Doth change. As *brunt* for *burnt*, and *Cruds* for *Curds*.
- Figures of Syntaxis.* The following are *Figures of Syntaxis in Excess.*
Pleonasm. In *Pleonasm* superfluous Words abound.
Mine Eyes did see't; *mine Ears did hear the Sound.*
- Poly syndeton.* In *Poly syndeton*, *Conjunctions* flow.
Both Lives, and States, and Hopes to thee we owe.
- Parentthesis.* *Parentthesis* is independent Sense
Clapt in. *Astræa's* fled (*fly Joys*) from hence.
- Parecelce.* *Parecelce* to the End puts more than needs.
He must be fat: See! evermore he feeds.

Figures of Syntaxis in Defect.

- Ellipsis.* Words in *Ellipsis* must be understood.
'Tis *one*, why *stay'st*? *Six* in the *Hundred*: good!

One Word to more, in *Zeugma*, is referr'd.
All Whist; nor *Leaves*, nor *Reed* by Wind is stirr'd. *Zeugma.*

Syllepsis puts two different Things together,
And yet at all no Difference there is whether
Shall rule. For *Thou* give place to *I*; and *He* to both:
And *She* to *Him* Obedience pays, though loth. *Syllepsis.*

Prolepsis sets all first, and then each Part.
They look, and wound the one the other's Heart. *Prolepsis.*

Asyndeton the Cop'latives denies.
Faith, *Justice*; *Truth*, *Religion*, *Mercy* dies. *Asyndeton.*

The Figures in the Body or Contexture of the Period, *Figures in the*
are such as follow: *Context.*

Words by *Hyperbaton* in Order run
Disturb'd. *Wealth*, which the old Man for his Son
Had rak'd and scrap'd together, now the Boy
Doth Perriwig and Pantaloon away. *Hyperbaton.*

Hysteron-Proteron puts the last Word first.
Here he was bred and born, brought up and nurs'd. *Hysteron-Proteron.*

Hypallage Words in Places chang'd doth set.
Cups which I never mov'd my Lips to yet. *Hypallage.*

'Tis *Hellenism* when we imitate
The Grecian Style. Thus *Spencer* trots in State :
" For not to have been dipt in *Lethe* Lake
" Could save the Son of *Thetis* from to die ;
" But that blind Bard did him immortal make;
" With Verses dipt in Dew of *Castalie*. *Hellenism.*

Tmesis between Words broke puts others in.
What Gloss Joe'er he puts on't, 'tis a Sin. *Tmesis.*

Hyphen does Words to one another tie.
The Sun-burnt Clown, the ever-chatt'ring Pie. *Hyphen.*

Enallage changes Person, Number, Tense,
Gender and Mood at will. See yonder whence *Enallage.*

*A Troop appears : Unless they march apace :
See here's your Horse, ne'er fear, we've won the Race.*

Antimeria. *Antimeria* for one Part puts another.
He's new come home ; your Say'll not save your
[Brother.

Anastrophe. *Anastrophe* puts last what first should go.
This is the Fault which I was subject to.

Synthesis. *Synthesis* minds not Words, but any ways
Speaks Sense. The Moor-hen treads, the Wood-cock
[lays.

Evocation. By *Evocation* the third Person's made
To yield to First or Second. Thou, a Blade,
Forget'st thy Nest. I, yet no aged Man,
Remember since thy Father froth'd the Can.

Conclusion of the third Part. THUS you have, as it were in a *Synopsis*, a View of all the gay and beauteous Flowers which grow in the Garden of the Muses. From hence the Orator gathers the Ornaments which embellish his Orations, and make them not only fragrant, florid, and engaging ; but rich, magnificent, and sublime : Such which charm the Ear, illuminate Truth, dispel Error, convince the Understanding, and command Assent.

Of the fourth and last great Part, Pronunciation, wherein it does consist. WE are now arrived to the last great Part or Division of the Rhetorical Art, viz. *Pronunciation* ; this is an apt and due Configuration or Conformation of the Voice and Gestures, according to the Nature of Words and Things. Of this the Memory is the chief Foundation : For unless a Person be able to discourse by Memory, or *Extempore*, much of the Force and Grace of Pronunciation or Utterance will inevitably be lost. And he who stands erect, and hath his Body at perfect Liberty, so as to be able to humour all the Gestures freely, and put himself in any kind of Motion, can certainly speak with a more natural, free, easy, and becoming Air, than they who are stily tied down to a written Oration. The latter indeed often utter most Sense, have the most correct Method, and the best Ratiocination ; but the other never fail to be far more agreeable and engaging. That the Pronunciation be just, a clear, articulate, even, gentle, and various Voice is necessary ; unaffected, free from all enthusiastic Tone and

and *Whining*; that it *rise* and *descend*, be *intended* and *remitted*, according as the *Number* of *People*, or the *Nature* of the *Subject* shall require. As to the *Gestures* of the *Body*, and its *Parts*, they ought to be *manly*, *rational*, and *graceful*; the *Body erect* and *strait*, and apt for easy *Flexure* on either side; the *Countenance* of the *Face* pleasant and sad, and variously expressive of the *Passions*, as the *Exigency* of *Things* requires; but always *natural*, and free from *affected*, *puritanical* *Airs*, and all *fanatic* *Grimace* and *Contortions*, as of one *possess'd*. The *Head* should stand *right* upon the *Shoulders*; the *Neck* free and easy of *Motion*; the *Shoulders* not hoisted or shrugg'd up; the *Arms* not projected but in vehement *Affections* of *Joy*, *Grief*, &c. the *Hand* gently moved from the left *Breast*, and falling to the right *Side*. To stamp with the *Feet* is permitted only on the *Stage*. In fine, the *Modulation* of the *Voice*, and the *Congruity* of *Gestures*, should be such, that the *Argument* may, as it were, be render'd visible to the *Eyes*; and the *Art* of the *Orator* should oblige us with the additional *Pleasure* of a *Sight* and *Prospect* of what *Nature* has only qualified us to *hear* and *understand*.

BEFORE we quit this Subject, it may not be amiss to say somewhat concerning *Style*, *Character*, or *Manner* of *Writing* or *Speaking*. This is of three Kinds. (1.) The *magnific* and *sublime*. (2.) The *mean* and *equable*. And (3.) the *low* and *simple* *Style*. Of Style; and its Kinds.

THE *low* or *humble* *Style* is a *Diction* *pure*, *decent*, and *native*, but not *rude* and *uncouth*; is close, modest, gently flowing, elegant, and simple; and though it rises not to *Pomp* and *Ornament*, yet it rejects the *vulgar* *Ways* of *Expression*, and requires a comely *Dress*. *Virgil's* *Bucolics* may be studied for a *Specimen* of this *Sort* of *Style* or *Diction*. Of the low Style.

THE *mean* and *equable* *Style* rises somewhat higher, and is more frequent in *Tropes*, but yet modest ones; is pretty *florid* with *Figures*, pleasant in *Episodes* and *Digressions*; flowing with *Sentences*, yet gently, like a *River* whose *Waters* glide murmuring over the *Stones* between its *Banks*, painted on either *Side* with *Flowers*, and variously shaded with *Woods*. For this read *Virgil's* *Georgics*. Of the mean Style.

Of the sublime
Style.

THE sublime and magnificent Style admits of nothing mean or low throughout the whole, no not so much as a single Sentence ; if any such Thing be observ'd, though all besides be said ever so well, it will lose the Character of the Sublime. It consists in a most exquisite Choice of Words, polite and elegant, bold and ponderous ; great Dignity of Tropes and Figures, which it useth with the utmost Freedom, splendid and noble, but not dazling ; solemn Majesty of Sentences, abounding with grand and awful Ideas ; and all other magnificent Furniture of Periods, Numbers, &c. This not only terrifies with Thunder, and flashes with Lightning, but strikes with Thunderbolts : Or like a mighty rapid Torrent, enlarg'd with Winter Snows, or Mountain Streams, which furiously bears down Bridges, Banks and Flood-Gates, lays waste the Fields, overturns the Rocks ; and where it finds no Way, will force one ; so it bears away with itself the Hearer and Adversary, and forces them to go wherever it pleases to ravish them. This glorious Strain of Rhetoric runs through the *Æneid*, which is perhaps the noblest Instance of the Sublime that we can read. If any thing common there occurs, it receives a peculiar Turn, and is exalted by some Trope, or beautified with a Figure. Thus instead of *Wine, Fire, Bread* ; *Bacchus* cheers, *Vesta* warms, and *Ceres* satiates Hunger.



Of LOGIC, or the ART of REASONING.

LOGIC is the *Art* of just Reasoning; or it is the Skill of using *rightly* the *Faculties* defined, of the *Mind* to the Purposes of discovering *Truth* or *Error*.

THE *Faculties* or *Powers* of the *Mind*, whose *Operations* are more immediately concerned in *Logic*, are four. (1.) *Perception*, *Conception*, or *Apprehension*, is that Act of the *Mind* which *perceives* and *contemplates* the *Species* of external *Objects* offered to the *Mind* by the *Senses*, and whereby we become *conscious* of them. (2.) *Judgment*; this is that *Operation* of the *Mind* whereby we *compare* two or more *Ideas* together, and from viewing them we discover, and accordingly *affirm* or *deny* some *Property* of them; as, *Fire* is *hot*; *mere Matter* cannot *think*, &c. (3.) *Reasoning*, *Argumentation*, or *Ratiocination*, is that *Action* of the *Mind* whereby we infer one *Thing*, or one *Proposition*, from two or more *Propositions* premised. Thus when I have judged that *Man* cannot be the *Cause* of himself originally, and yet he is the *Effect* of some *Cause*, I must necessarily infer and conclude, the *Cause* of *Man's Existence* is something external and different from himself, which we call *GOD*. (4.) *Disposition*; this is that *Faculty* of the *Mind* whereby it puts the *Ideas* or *Conceptions* in such an *Order* as is most fitting to give a *clear View*, and yield the compleatest *Knowledge* of them; and for an *Instance* thereof, you may take this very *Description* of the four *Operations* of the *Mind*, and their *Effects*. The *Effect* of this *Operation* is call'd *Method*.

Ideas, what.

THE first of these *Operations* or *Faculties* of the Mind is conversant about *Ideas*. An *Idea* is the *Image* or *Representation* of *Objects* in the Mind: Thus the *Notion* or *Form* of a *Horse*, a *Tree*, a *Man*, &c. as it *existeth* in the Mind, is call'd the *Idea* of a *Horse*, a *Tree*, or a *Man*.

All Ideas acquired by Sensation or Reflection.

ALL *Ideas* become the *Objects* of the Mind, or are there presented to the *Judgment*, either (1.) By the *Perception* of the *Senses*, by means of the *Nerves*, which we call *Sensation*: or (2.) By the *Meditation* of the Mind, which we call *Reflection*.

Themes, what.

THE *Objects* of *Perception*, which are the *Archetypes* of our *Ideas*, are call'd *Themes*, whether they are *Beings* or *Not-beings*, or *Entities* or *Non-entities*; for *Non-existence* may be proposed to our Minds, as well as *real Existence* or *Being*.

Of Being and Not-being.

Being is that which is or doth really and actually exist, and therefore call'd *Existence*; *Not-being* is that which hath no *Being* or *Existence* in Nature, and is call'd *Non-existence*. Again; every *Being* is considered as *subsisting* either (1.) in and by itself, and that is call'd a *Substance*; or, (2.) it subsists in and by another, and then 'tis call'd a *Mode* or *Manner* of *Being*. Thus a *Body*, as my *Pen*, is a *Substance*, and its *Figure* or *Shape* the *Mode*.

Substance. Mode.

Thus a *Body*, as my *Pen*, is a *Substance*, and its *Figure* or *Shape* the *Mode*.

Of Substances, and the various Kinds: Simple.

OF *Substances*, some are *Simple*, others *Compound*: *Simple Substances* are those which are perfectly homogeneous, or without any *Mixture* or *Composition* of different Natures in them: as (1.) *Spirits*; such we conceive *GOD* to be, and the *Angelic Species*: or, (2.) The *Elements* of *Natural Bodies*, or those *first Principles*, or *simple Corpuscles* of which all *material Bodies* do originally consist. *Compound Substances* are made up of two or more *simple ones*, and such are all that are perceptible by our *Senses* in the *material World*.

Pure.

AGAIN; *Substances* are said to be (1.) *Pure*, when they consist of only one *Sort* of *Substance*; as a *Guinea* is *pure Gold*, if it has nothing but *Gold* and no *Alloy* of other *Metal* in it. (2.) *Mix'd*; such as consist of two or more heterogeneous *Substances*. (3.) *Animate* are those which have *Life* and *Sense*, as *Animals*, *Beasts*, *Fish*, *Men*, &c. (4.) *Inanimate*; those which have no *Life* or *Sense*, as *Stones*, *Earth*, *Water*, &c. (5.) *Vegetable*;

Mix'd.

Animate.

Inanimate.

(5.) *Vegetable*;

- (5.) *Vegetable*; such as are possess'd with a *Power of Vegetable Growth, Increase, and Production*, but without proper *Life and Sense*, as *Plants, Herbs, and Trees*.
 (6.) *Rational*; such as are endow'd with the *Faculty of Reason and Intelligence*, as *Angels and Men*, and even *Brutes* too, in some Degree: All others are call'd *Irrational, or devoid of Reason*.

OF *Modes*, which are also called the *Qualities, Attributes, and Accidents* of Being or Substance, there are reckoned the following Kinds. (1.) *Essential*; that which belongs to the very *Essence or Nature* of the Substance or Subject in which it is; and this is either *primary*, as *Roundness* in a *Globe*; or *secondary*, which is consequent upon the other, as *Volubility* or *Aptness* to roll: The first is call'd the *Difference*, the latter the *Property* of the *Body or Globe*. (2.) *Accidental*; that which is not *necessary* to the Being of the Thing, but may be wanting, and yet the *Nature* of the Subject remain the same; as *Smoothness* or *Roughness, Largeness* or *Smallness*, this or that *Colour, Motion* or *Rest*, in a *Globe* or *Bowl*: These *Modes* are properly call'd *Accidents* of *Bodies*.

Modes are farther divided into (3.) *Absolute Modes*; an *absolute Mode* is that which belongs to its Subject without respect to any other Being whatsoever, as *Size, Motion, &c.* in a *Globe*. (4.) *Relative Modes* are deriv'd from *Comparison* of one Being with others; and these are the *Affections* of the *absolute Modes*, as *Greatness* and *Smallness* of *Size*, and *Swiftness* and *Slowness* of *Motion*; which are only so in *Respect* or *Comparison* of the *Size* or *Motion* of other Things. (5.) *Intrinsic Modes* are such as are *inherent* in the Subject itself, as *Roundness, Size, Motion, Rest, &c.* in a *Globe*. But (6.) *Extrinsic Modes* are such as derive their Being from other Beings without the Subject, as *Vicinity* or *Nearness*, or *Distance, Affinity* or *Relation, &c.* (7.) Some reckon *Action*, and (8.) *Passion*, or suffering the *Action*, among the *Modes* of *Existence*, as they doubtless are. (9.) *Natural* or *Physical Modes* are such as are deriv'd from *Nature*, as the *Shape* and *Senses* of *Animals*. But (10.) *Supernatural Modes* are such as result from something above the *Power of Nature*, as *Inspiration, &c.* (11.) There are not only *Modes* of *Substances*, but of *Modes* also

themselves: For when I say, *A Man walks gracefully*, 'tis plain *Motion* is his *Mode* at that *Time*; but *Walking* is a particular *Mode* or *Manner* of his *Motion*, and *gracefully* is still a farther *Mode* of *Walking*.

Of the Five
Predicables.

THE Ancients, and from them the *Schools* of some later Ages, have made a great Noise about their *Predicables*, and *Predicaments* or *Categories*. By *Predicables* they mean such common *Words* or *Qualities* as might be *predicated* or asserted of divers *Things* or *Subjects*, as *Animal* may be *predicated* of *Man*, *Beast*, *Fowl*, &c. Of these *Predicables* they reckon'd five *Kinds*, viz. (1.) *Genus*, or *Kind*. (2.) *Species*, or *Particulars* of each *Kind*. (3.) *Difference*, or that *Quality* which makes one *Thing* of a *different Nature* from another. (4.) *Property*, as before explained. (5.) *Accident*.

Genus.

Species.

Difference.

Property.

Accident.

Of the ten

Predicaments.

What they be.

Rejected by the

Moderns.

By *Predicaments* they understood an orderly *Series* of *Words*, which express'd simple *Ideas* or *Things*; of these *Predicaments* they number'd ten, viz. *Substance*, *Quantity*, *Quality*, *Relation*, *Action*, *Passion*, *Where*, *When*, *Situation* and *Cloathing*. But this ten-fold Division of *Things* the *Modern Logicians* reject, as loose, injudicious, and even ridiculous.

Of Non entity,
or Not-being.

Is two-fold.

Of Substances;
as Nibility or
Vacuum.

Or of Modes
only.

Privation.

Negation.

HAVING thus view'd *Being* or *Substance* both absolutely and variously modified, we shall just reflect on the Nature of *Not-being*, or *Non-entity*. This is of a two-fold Consideration, as it may be in respect both of *Mode* and *Substance*. For (1.) there may be a *Non-entity* of *Substance* (and consequently of the *Modes*) and this is call'd pure *Nibility*, or *meer Nothing*; and this in a *Physical Sense* is call'd a *Vacuum* also. (2.) There may be a *Non-entity* of *Modes* only; and that either of such as naturally belong to the *Subject*; as of the *Sight*, *Hearing*, &c. in a *blind* and *deaf Man*, and this is call'd *Privation*: Or it is of *Modes* not essential to the *Subject*; as *Learning*, *Riches*, &c. in a *Mechanic*, and this is call'd *Negation*. Now 'tis plain a great Number of our *Notions* will fall under the Class of *Non-entities*, as *Sin*, *Darkness*, &c. and some have cast hither all the *Relative Modes*, or *Relations*, and all others which they call *meer Creatures* of the *Mind*. But how justly, let better Judges determine.

Being,

Being, Not-being, and the Modes thereof being Of Ideas.
 considered, we are naturally led to a *Contemplation* of the *Ideas* of those Things in our Minds. And in doing this, we shall consider their various Kinds according to (1.) their *Original*; (2.) their *Nature*; (3.) their *Objects*; and (4.) their *Qualities*. For this four-fold Division will easily comprise them all.

WITH respect to the *Original* of *Ideas*, they will be (1.) *Sensible* or *corporeal Ideas*, as being derived originally from *Bodies* by the *Senses*; such are all the *Ideas* of *Colours, Sounds, Tastes, Figures, Shapes, Motions*, and all we call *sensible Qualities*. (2.) *Mental* or *Intellectual Ideas*; such as we gain by *Reflection* on the *Actions* of our *Minds*, and observing all that passeth there. Such are the *Ideas* of *Thought, Assent, Dissent, Judging, Reason, Knowledge, Mind, Will, Love, Fear, Hope, &c.* (3.) *Abstracted Ideas*; these are acquired by that *Faculty* of the *Mind*, call'd *Abstraction*. Such are *Cause, Effect, Likeness, Unlikeness, Subject, Object, Identity, Contrariety, and Terms* of *Arts* and *Sciences*. But these *Abstracted Ideas* are too much implied in the other two of *Sensible* and *Intellectual*, to make a *Distinction* of *Originals*.

Ideas, with respect to their *Natures*, are *Simple* and *Complex, Compound* and *Collective Ideas*. (1.) A *Simple Idea* is one *uniform* and *indivisible Idea*, which the *Mind* cannot distinguish into two or more: As the *Ideas* of *sweet, bitter, Cold, Heat, white, red, hard, soft, Thought, Will, Wish, &c.* (2.) A *Complex Idea* is made by joining two or more *simple ones* together; as a *Square, Triangle, Cube, Pen, a Table, Reading, Body, a Man, an Angel, a swift Horse, &c.* and every Thing that can be divided by the *Mind* into two or more *Ideas*. (3.) A *Compound Idea* is such as contains several *distinct* and *simple Ideas* of a *different Kind*. Thus *Man* is a *Compound* of *Body* and *Spirit*; *Mithridate* is a *Medicine* compounded of many *different Ingredients*; *Harmony* of *different Sounds* united, &c. Which yet are look'd upon often as *distinct* and *single Beings*. (4.) A *Collective Idea* is when a *Number* of *Ideas* of the *same Kind* are united together, and consider'd in one *View*; as an *Army* of *Men*; a *Flock* of *Sheep*; a *Dictionary* of *Words*; a *Nossegay* of *Flowers*; a *Grove* of *Trees, &c.*

Ideas,

*Ideas divided
with respect
to their Ob-
jects.*

*Particular
Ideas.*

*Universal
Ideas are Ge-
neral or Spe-
cial.*

Genus, what.

Species, what.

Real Ideas.

*Imaginary
Ideas.*

*The Division
of Ideas with
respect to their
Qualities.*

*Ideas clear
and distinct,
obscure and
confused.*

*Vulgar and
learned Ideas.*

Ideas, according to their Objects, may be divided into Particular and Universal, Real or Imaginary.

(1.) *Particular Ideas* represent single Objects either in a vague and indeterminate manner, as *some Man, one Time, some one City, any Horse, &c.* these the Schools call the *Vague Individual Ideas*: Or else in a determinate Manner; as *Cicero the Orator, Peter the Apostle, this Book, that River, the New-Forest, the City of London, &c.* (2.) An *Universal Idea* is that which represents a *Common Nature*, agreeing to several particular Things, as a *Man, a Horse, a Book*. These are also distinguished into *General* and *Special*; the *General Ideas* are of the *Genus* or primary common Kind, which includes other common Natures; as *Animal* is a *Genus*, because inclusive of all the common Natures of Animals. The *Special Ideas* are those of the *Species*, which is a common Nature agreeing to several Individual Beings; thus *Horse* agrees to *Trot, Dobbin, &c.* *Man* to *Peter, Paul, John, &c.* *City* to *London, Paris, &c.* Whence 'tis easy to observe the same *Idea* may be sometimes a *Genus*, and at others a *Species*. (3.) *Real Ideas* are of Objects which do really exist in Nature; but (4.) *Imaginary Ideas* are of those things which do not exist in that particular Manner as we conceive them in the *Idea*; as a *Castle in the Air, a Centaur, Chimæra, Satyr, Sea of Fire, &c.*

THE last Division of *Ideas* is that with respect to their *Qualities*; wherein they are said to be *clear* and *distinct*; or *obscure* and *confused*; *vulgar* or *learned*; *perfect* or *imperfect*; *true* or *false*. (1.) A *clear and distinct Idea* is that which represents the Object to the Mind in a *free and separate View*, with full *Evidence* and *Strength*, plainly distinguishing it from every other Object. An *obscure and confused Idea* represents the Object faintly, imperfectly, and confounded or mingled with others. Thus the *Sky* and the *Sea* exhibit *clear and distinct Ideas* near at hand; but *obscure and confused* in a hazy Day near the *Horizon*. (2.) *Vulgar Ideas* are of the most common and sensible Appearances contain'd in the Objects; as of the splendid Colours and Form of the *Rain-bow*: But *learned Ideas* represent the more intimate Nature, Properties, Causes, and Effects of Things; as a *Philosopher's*

Idea of the various Reflections and Refractions of Sun-Beams in Drops of falling Rain, and the *Genesis* of the *Rain-bow* from thence. (3.) *Perfect* or *Adequate Ideas* represent their archetypical Objects, completely and perfectly, or fully and entire; as those of a *Square* or *Triangle*; all the Parts whereof are evident: But *Imperfect* or *Inadequate Ideas* represent their Objects partially, incompletely, and not entire. As that of a *Cube*, when you see only the *square Side* thereof; or that of a *Figure* of a *thousand Sides and Angles*; the *Powers* of the *Magnet*, &c. (4.) *Ideas* are *true*, when they are conformable to the Objects, and represent them just and simply such as they really are; otherwise they are *false Ideas*. As when a Man in the *Faundice* sees all Things yellow; or the crooked Appearance of a *strait Stick* in the *Water*; or the *Sun* or *Moon* rising bigger than in the *Meridian*.

THUS we have taken a succinct View of *Substances* and *Modes*, as they exist without us, and form the various material and modified World; and also of the *Ideas* which they excite within us, and which constitute that noble *Variety* and *Treasure* of *Knowledge* and *Science* in the *Mind*: 'Tis now in order requisite that we take Notice of the *Ways* and *Means*, whereby we are able to express these *Ideas* and *Sentiments* of the *Mind*, and to communicate them to others: And this is by the Use of *Speech* and *Language*.

Language has been already treated of so far as it has a *Grammatical* and *Rhetorical* Regard. It remains now to be consider'd with respect to its Use in *Logic* or the *Art of Reasoning*. And thus we must consider *Words* and *Terms*, as *Marks*, *Characters*, or *Symbols* of *Ideas*, either *Vocal* or *Written*, and which are aptly expressive of their different *Natures* and *Properties*, and render them intelligible to others.

AND as *Words* are the Medium of *Knowledge* and *Truth*, so it often happens they are Sources of *Mistake* and *Error*: And that (1.) because there is no necessary *Connexion* or *Relation* between our *Ideas* and *Words*, but *Words* are arbitrarily imposed by different People; and who therefore in different Sounds express the same Thing; as *Albus* in *Latin*, *Blanc* in *French*, *Leucos* in *Greek*, and *White* in *English*. (2.) Because different simple *Ideas* are not always express'd by appropriate

Perfect and adequate Ideas, and the contrary.

True and false Ideas.

A Transition to Language, or Words and Terms.

Of Language consider'd with regard to its Use in Logic.

Words the Means not only of Knowledge, but of Error sometimes. The principal Sources thereof.

propriate single Words, but oftentimes *many* by the *same Word*. As the Words *Sweet* and *Sharp* are both applied to the Objects of different Senses, viz. of *Hearing* and *Tasting*. (3.) Because we cannot always express the *simple Ideas* in *complex ones*, by *peculiar* and *appropriated Words*; as we do in the Apple *Bitter-sweet*. (4.) Because many Words are used in their *original Sense*, and yet their *Etymology* is *different*, *obscure* or *uncertain*. (5.) Because many Words are used in a Sense entirely different from that in the *original Language*. Thus the Word *Spirit* with us is from *Spiritus*, *Breath* or *Air*, from *spiro*, to *breathe*, in *Latin*; the same also is in the *Greek* and *Hebrew* for the same Word. (6.) The last great Cause of Error I shall mention, is the signifying *many Ideas*, of *different Natures*, by *one* and the *same Word*: As the Word *Gate* signifies a *great Door*, the *Mien* in walking, &c.

Of the various
Kinds of
Words and
Terms.

FROM whence 'tis evident, if we would avoid *Mistake* and *Error* in our Pursuit after *Truth*, we must take good Heed to the *Use* and *Meaning* of *Words* and *Terms*, and be acquainted with their various Kinds. The Kinds of Words are those which follow: (1.) *Positive* and *Negative*. (2.) *Simple* and *Complex*. (3.) *Common* and *Proper*. (4.) *Univocal* and *Equivocal*. (5.) *Concrete* and *Abstract Terms*. Of all which in their Order.

Of Positive
and Negative
Terms.

TERMS are either *Positive* or *Negative*. *Positive Words* have an *affirmative Sense*, and signify some *Positive Idea*; as *Art*, *Life*, *Sense*, *Motion*, &c. But *negative Terms* exhibit *negative Ideas*, or have a *negative Sense* express'd by some *Particle* or *Preposition* of *Denying* join'd to them; as *Artless*, *Lifeless*, *Senseless*, *Nonsense*, &c. Thus the *Positive Terms* *finite*, *immoveable*, *irregular*, &c. are render'd *Negative* by the *Particles* *In*, *Im*, *Ir*; as *infinite*, *immoveable*, *irregular*, &c. But in many Cases *Positive Words* have *Negative Significations*, and the contrary, which is a great *Imperfection* and *Unhappiness* in *Language*.

Of Simple
and Complex
Terms.

THE second Division of Terms is into *Simple* and *Complex*. A *Simple Term* is *one Word*; a *Complex Term* is when more Words are used to signify *one Thing*. Thus, the *second Emperor of Rome* excites the *Idea* but of *one Man*, viz. *Augustus*. Of this sort
are

are most *Circumlocutions*. Also many *simple Words* are *complex* in *Sense*; as those which contain *complex*, *compound*, and *collective Ideas*; as *Man*, *Mithridate*, *Army*, &c. which all contain a *Variety* of *Ideas*; as are most of our *Moral Words* and *Natural Ideas*, *Religion*, *Piety*, *Loyalty*, *Knavery*, *Theft*, &c. Some *Terms* are *complex* both in *Words* and *Sense*; as, a *fierce Dog*, a *pious Man*; which *Expressions* excite an *Idea* not only of the *Creatures*, but their peculiar *Qualities* also.

AGAIN, *Words* and *Names* are either *Proper* or *Common*, which are also call'd *Appellatives*; for both which see the Chapter of *Grammar*. Only here observe (1.) That *Proper Names* in some *Sense* may become *Common*. As *Cæsar* was the *proper Name* of *Julius* the first *Roman Emperor*, but became afterwards the *common Name* of all the following *Emperors*. (2.) A *common Name* is sometimes used as a *proper one*; thus when we in *Great Britain* say, the *King*, the *Prince*, we intend properly *King George*, and *Frederic Prince of Wales*. (3.) That any *common Name* is made *proper*, by the *Addition* of some *Term* of a *particular* and *determinate Meaning*; as, the *present Pope*, the *King of Great Britain*, the *Roman Orator*, *this Book*, *that Knife*, &c.

Of proper and common Words.

THE fourth Division of *Words* and *Terms* is into *Univocal* and *Equivocal*. *Univocal Words* are such as signify but *one Idea*, or at least but *one sort* of *Thing*; as *Book*, *Bible*, *Fish*, *House*, *Elephant*. But *Equivocal Words* are such as signify *two or more different Ideas*, or *different sorts* of *Objects*: Thus the *Word Head* signifies the *Head* of a *Nail* or *Pin*, as well as of an *Animal*. So the *Words Nail*, *Post*, *Church*, *Grave*, *High*, *Sweet*, *Sharp*, &c. are *Equivocal*, as signifying several different *Things*. And when *Persons* in *Dispute* use *Equivocal Words* with a *Design* to *puzzle* or *deceive*, it is call'd *Equivocation*. Note, that as these *Equivocal Terms* are call'd *Homonymous* or *Ambiguous*; so *Words* which signify the same thing are called *Synonymous*, as *Faith*, *Belief*, *Credit*, *Assent*, which all import the same *Idea*, or *Action* of the *Mind*.

Of Univocal and Equivocal Words.

Equivocation, what.

Homonymous and Synonymous Terms.

SINCE *Equivocal Words* are of the greatest Importance to be well understood, and their various *Senses* distinctly known in all *polemical Affairs*, or *Matters* of the several Kinds of *Equivocal Words* of and *Terms*.

- of *Disputation*; I shall briefly here enumerate the several Kinds thereof. And (1.) Some are *Equivocal* in *Sound* only; as *Rein*, of a Bridle; *Reign*, of a King; *Rain*, a Shower: *Might*, Strength; *Mite*, a little Animal: So *write*, *Wright*, *right*, &c. (2.) Some in *Writing* only; as to *tear* in Pieces is spell'd and wrote the same as a *Tear*; and to *lead*, the same as *Lead*, a *Metal*. *Bowl* a Ball, and *Bowl* a Vessel, are wrote the same. (3.) Some are *equivocal* in respect of their *Extent of Meaning*, being sometimes taken in a larger and more general, and sometimes in a more particular and *restrain'd* Sense. Thus *Sin* and *Virtue* are sometimes used to signify particular *Actions* and *Faculties*; and sometimes the general *Nature* of all *Good* and *Evil*. (4.) Some are so in regard of their *Original* and *Modern* or *Customary Use*. Thus *Spirit* originally signified the *Breath*, *Air* or *Wind*; but it is likewise used to signify *invisible Beings*. *Geography* originally signifies a *Description* of the *Earth* only, but by *Custom* it generally includes that of both *Earth* and *Sea*. The same may be observ'd of *Theology*, *Astronomy*, *Geometry*, &c. (5.) Some by reason of a *Literal* and *Figurative Sense*. Thus, by a *Metaphor*, God is said to *repent*, *grieve*, &c. By the Figure *Epitrope*, *Solomon* says, *Rejoice*, O young Man, and let thine Heart cheer thee, &c. (6.) Some on account of a *common* and *scientific Meaning*. Thus *Passion* vulgarly signifies *Anger* or *Wrath*; in *Morality* the *Affections* of the Mind, as *Love*, *Joy*, *Fear*, *Sorrow*, &c. and *Philosophically* it signifies the *receiving* any *Action* impressed: So the Word *simple* in the common Sense is *foolish*; but in *Science*, it is *single*. (7.) Some on account of an *absolute* and *comparative Sense*. As when our Saviour says, *Be ye perfect as your heavenly Father is perfect*. These are the principal Kinds of *equivocal* or *ambiguous* Words, which have their *Sources* from *Chance*, *Error*, *Time*, *Custom*, *Figure*, *Occasion*, *Interest*, &c.
- THE Nature of *Substances*, *Modes* or *Qualities*, together with their *Ideas* and the Words which express them, being all consider'd, and discoursed of; it remains that we now approach to the *Use* that is to be made thereof in the *Art of Disputation*. In order thereto, the first thing necessary is *Definition*; since before

before we pretend to hold an Argument or Discourse, with a view of gaining or forcing Belief, 'tis absolutely necessary that those Words and Things, on which the Force of the Argument depends, be first well defin'd and explain'd, before they can be understood. For since Belief is only the Assent of the Mind to the Truth or Falsity of a Proposition advanced by another in a way of Reasoning, according as it appears evident and intelligible, 'tis easy to observe, (1.) That Faith is not a Matter of Choice, or dependent on our Will, but follows necessarily the Evidence and Probability of Reasoning. Therefore (2.) when we do not understand the Terms and Subject of Argumentation, we can in no wise be said to believe the Inferences or Conclusions form'd from thence.

Definition

wherefore

necessary, both of Words and Things.

Faith, or Belief, what.

Not voluntary.

DEFINITION is twofold; one of the Name, the other of the Thing. A Definition of the Name or Word, is the explaining and determining precisely what Sense, Meaning, or Signification it is used in; or what Idea or Object is meant by it; and that by such Circumstances or Properties thereof, that it may be distinguished sufficiently from all other Objects. Thus, to define the Word Patient, the Divine or Moralist would say, it is the enduring or suffering Injuries and Afflictions quietly. The Physician defines it, a Person diseas'd and under his Direction for Cure: But the Philosopher defines it, any Body which receiveth Action or Impulse.

Definition of the Name or Word.

THE Directions or Rules relating to the Definition of Names are principally the following: (1.) No Words should be chosen but such as have Ideas; for though the Discourse be sounding and verbose, yet if it want Ideas, or Substance, it will be trifling, immaterial, and conclude Nothing. Much of this Nature may be observ'd in Harangues on the human Soul. (2.) We must not suppose the Nature of Things as different as their Names. Thus it would be ridiculous to dispute whether Dandelion be an Herb or Weed, or Potherb or Sallad; since they may all denote the same Species of Being. (3.) We should not think the Nature of two Things the same, because they have the same Name. Thus speaking of the Life of Plants, and the Life of Animals, though the Name be the same, the Idea must be consider'd as entirely different

The Rules for the Definition of the Name.

ent in each Subject: And *Heat* in the *Fire* and in our *Flesh* must have very different Definitions. (4.) Learn the true Meaning of Words and Terms from learned Men, and learned Books, that you may not be led into Error through *Vulgarisms* and *Prejudice*. (5.) Use plain and intelligible Words; and shun those of an obscure ambiguous Meaning, that your Candour and Ingenuity be not suspected. (6.) Let Words be defined in their proper and native Sense, in which Mankind use them, as near as possible; and in all your Discourse keep close to the Sense defined, and first determined.

The Definition of the Thing.

THE Definition of the Thing is a Description of its general Nature and specific Properties, whereby the Idea of that Thing is differenced and distinguished from the Idea of any other. Thus if I would define what *Wine* is, I say, *It is the Juice express'd from Grapes*.

The Rules relating thereto.

THE Rules for a good Definition of the Thing are such as here follow: (1.) It must include the nearest Genus, or general Nature, of the Thing. So above, though *Wine* be a *Liquid*, yet that is a more remote Genus than *Juice*; and *Substance* would be still more remote than a *Liquid*; therefore *Juice*, as being the nearest Genus, was used in the Definition of *Wine*. (2.) That primary Attribute or Quality of the Thing, which determines its specific Difference, must be carefully mention'd. Thus to say, *Wine is the Juice of a Fruit*, is too general a Difference; for though 'tis certain from thence, that 'tis not the *Juice* of an *Herb*, yet it may be *Cyder*, *Perry*, &c. as being the *Juices* of *Fruits* also: But to say, 'tis a *Juice express'd from Grapes*, distinguishes its special Nature, and differences it from all other *Juices*. (3.) It must be universal or adequate, so as to agree to all the particular Species or Individuals belonging to that Idea: So the *Juice of the Grape* agrees to all proper *Wines*, whether *Red*, *White*, *Rhenish*, *Florence*, &c. (4.) It must be peculiar to the Thing defined, and agree to that alone: So the *Juice of the Grape* agrees to no other Being but *Wine*. (5.) It ought to be clear and plain, and free from obscure and equivocal Words and Terms; the Design of the Definition being to lead us into the Knowledge of the Thing defin'd. (6.) It ought to be short, and free from Tautology and superfluous Words. (7.) The Definition ought to be such as will reciprocate with

with the Thing defined. Thus *Wine* is the *Juice of Grapes*; and we may also say, the *Juice of Grapes* is *Wine*. (8.) The Definition of the Thing should be really distinct and different from the Definition of the Name.

WE come now to treat of *Division* and *Distribution*: For being able to define a Thing is not sufficient in Matters of Reasoning; but we must be well instructed in the manner of dividing and distributing whole Ideas into their proper Parts and Species. In order to this, we must consider that there are two kinds of whole Ideas. (1.) An *Integral Whole*, when all the Parts are distinct from each other, and may subsist apart: As the *Head*, the *Limbs*, and *Trunk* of an animal *Body*. Thus *Digits* are the integral Parts of a *Number*; the *Spring*, *Wheels*, *Ballance*, *Axle*, *Pinion*, *Dial-Plate* and *Case*, are the integral Parts of a *Watch*. This sort of Parts constitutes the Compleatness of any Subject: And an Enumeration of all those Parts is call'd *Division*. (2.) There is a logical or universal Whole; and the Parts of it are all the particular Ideas to which this universal Nature extends: So a *Species* is a *Whole*, as *Horse*; and the *Individuals*, as *Trot*, *Dobin*, *Duke*, &c. are the *Parts*. Thus if the *Genus* be the *Whole*, the *Species* will be the *Parts*. A proper and distinct Enumeration of these Parts of a Subject, is call'd *Distribution*.

SINCE then *Division* and *Distribution* is an Explanation of the Nature of a Thing by a distinct Consideration of its integral or logical Parts, it will be necessary to lay down the following Rules relating thereto. (1.) The Parts severally taken must be less than the Whole; but taken collectively (or together) they must be precisely equal thereto. (2.) Begin with, or first consider the larger and more immediate Parts; and not divide at once into the more minute and remote Parts. (3.) The Parts ought to be separate and different, that no one may be contained in another. (4.) Divide every Subject with regard to the special Design you have in View. (5.) Let not Subdivisions (or a secondary Division of Parts into others still less) be too numerous without Necessity; lest it induce Confusion, and make you seem affectedly pedantic and impertinent. (6.) Your Division of Things should be justly according to their Natures; avoiding all the Far-

gon of *Duplicities, Triplicities, Dichotomies, Sevens, &c.* which *Nature* never affects. These Rules equally serve for Distribution, if, instead of *Parts*, you read *Species* or *Individuals*.

*Special Rules
to direct and
assist our Con-
ception of
Things.*

BEFORE we leave this first *general Head*, or *Part of Logic*, viz. *Conception*, it will be very proper to lay down some Rules, directing and assisting us in that Act of the Mind, whereby we perceive and obtain our *Ideas*. (1.) Endeavour to get a *clear and distinct Conception* of Things, just such as they are in their own Natures. Thus *Optic Glasses* take off the *dazzling fallacious Lustre* of Objects, bring distant ones to a *near and distinct View*, and shew the *unseen native Beauties* and *Parts* of the most minute Animals. (2.) Conceive of Things compleatly, in all their *Parts*; thus the *Anatomical Knife* dissects an *Animal Body*, and separates the *Membranes, Muscles, Organs, Arteries, Veins, Nerves, &c.* and shews the several *Parts* which compleat the *Whole*. (3.) Conceive of Things *comprehensively*, in all their *Properties* and *Relations*; like as a *Terrestrial Globe*, turning on its *Axis*, shews all the Variety of *Lands* and *Seas, Kingdoms* and *Nations*, and their various *Situations* and *Relations* to each other. (4.) Conceive of Things *extensively*, in all their *Kinds, Species, and Individuals*: As a *Prism of Glass*, refracting the *Sun-Beams*, separates the *different Kinds of Colours, red, orange, yellow, green, blue, indigo, violet*, and distributes them in order on the *painted Spectrum*. (5.) Conceive of Things *orderly*, and in a proper *Method*; that your *Ideas* be dispos'd like Books in a *well-contriv'd Library*, according to their *Sizes* and *Subjects*. Proceed we now to the second great Part of *Logic*, viz.

*Of the second
great Part of
Logic, Judg-
ment.*

JUDGMENT; this has been already defined as an *Act* of the *Mind*; but as a *great Part of Logic*, it must be defined, *The Doctrine of Propositions in general, with regard to their Nature and Kinds*. For as *Ideas* are the Result of *Conception* or *Apprehension*, so *Propositions* are the Effects of *Judgment*.

*A Proposition
defin'd.*

A *Proposition* is a Sentence wherein two or more *Ideas* or *Terms* are join'd by one *Affirmation* or *Negation*. As *Plato* was a *Philosopher*. *Descartes* was not so good a *Philosopher* as *Sir Isaac Newton*.

THERE

THERE are three Things necessary to the Nature *The Parts*
and Constitution of a Proposition, viz. (1.) The Sub-*thereof.*
ject; or that of which any Thing is affirmed or denied. *The Subject.*
As Plato and Descartes in the foregoing Examples.
(2.) The Predicate; or that which is affirmed or denied *The Predicate.*
of the Subject. Thus *Philosopher* is the Predicate
of the first Proposition; and, *so good a Philosopher*
as Sir Isaac Newton, in the latter one. The Subject
and Predicate, taken together, are call'd the Matter
of the Proposition. (3.) The Copula; this is call'd the *The Copula.*
Form and Mode of a Proposition, as it represents the
Manner of it in affirming or denying; and is express'd
by the Words or Particles, *am, art, is, are, &c. or,*
am not, art not, is not, are not, &c. or, may, can,
ought, should, must be, &c. and the same join'd with
not.

Propositions, according to their Subject, Predicate, Propositions
and Copula, are distributed into various Kinds, as they *how distin-*
are also with respect to their Nature, Purport, and *guish'd.*
Evidence.

Propositions, in regard of their Subject, are of four *Propositions in*
Kinds, viz. (1.) Universal; when the Subject is taken *regard of the*
in its whole Extension, and hath Universality signified *Subject are*
by proper Words, as, *all, every, no, none, &c.* as, *All* *Universal.*
Men must die; no Man knows all Things. (2.) Par- *Particular.*
ticular; when a Subject is not taken in its whole Ex-
tension; and is denoted by Words of Particularity, as
some, many, a few, &c. as, *Some Men are born blind:*
Many Notions of God are erroneous: Few Men are truly
wise. (3.) A single Proposition; when the Subject is *Single.*
a singular and individual Term or Idea. As, *Descartes*
was an ingenious Mathematician: Sir Isaac Newton
excell'd all: This Day is very fine. (4.) Indefinite; *Indefinite.*
when the Subject has no Note of Universality or Par-
ticularity affix'd to it, and yet is general in its Na-
ture; as, *Men are rational Creatures; Stones have no*
Sensation.

Propositions, with respect to their Copula, are either *Of Affirmative*
(1.) Affirmative; when the Copula is one of those *and Negative*
Sorts of Words, which affirm or assert something po- *Propositions.*
sitively of the Subject, as, *All Men are Sinners: There*
will be a Resurrection of Men's Bodies. Or, (2.) Ne-
gative; when the Predicate is denied of the Subject,

by some Particle of Negation, as, *Man is not innocent: No Man is immortal.*

Of Pure and Modal Propositions.

Modes of connecting the Subject and Predicate.

Single and compound Propositions defined.

Several Sorts of the compound ones.

True or false Propositions defined.

Propositions, in regard of the *Predicate*, are distributed into pure and modal. (1.) A pure *Proposition* is that which merely and simply expresses the *Predicate* connected with the *Subject*, as, *Man is an Animal.* (2.) *Modal Propositions* are such as include also the *Manner* and *Way*, wherein the *Predicate* is connected with the *Subject*. The *Modes* of such Connection are reckon'd four. (1.) *Necessity*; as, 'Tis necessary a *Globe should be round.* (2.) *Contingency*; as, *A Globe may be made of Wood or Glass, 'tis indifferent which.* (3.) *Possibility*; as, 'Tis possible a *Globe may be made of Water.* (4.) *Impossibility*; as, 'Tis impossible a *Globe should be square.* But these *Modes*, being only natural, are very deficient in *Number*; since to them may be added *Metaphysical, Moral, Civil*, and other *Modes* of connecting the *Predicate* with the *Subject*.

Propositions are distributed into single and compound, in Consideration of their *Nature*. (1.) A single *Proposition* is that which hath only one *Subject*, and one *Predicate*. If these contain simple *Ideas*, or simple *Terms*, the *Proposition* will be purely simple; as, *Man is risible: Virtue is desirable.* But if the *Subject* or *Predicate* are made up of complex *Terms*, the *Proposition* will be complex; as, *Every sincere Penitent is pardoned: No Man is perfectly innocent.* (2.) A compound *Proposition* hath two or more *Subjects*, or *Predicates*, or both, expressed or understood, as, *Riches and Honours are Snares: Men are rational and mortal: Light and Heat enliven and delight both Men, and Beasts, and creeping Things.* And according as the Particles, *and; either, or; if; that, because; as, so; but, tho', yet; only, alone; than;* are used to connect the complex *Terms*, so the *Propositions* are denominated *Copulative, Disjunctive, Conditional, Causal, Relative, Discretive, Exclusive, Exceptive, Comparative, &c.*

Propositions, according to their *Sense* or *Signification*, are distinguish'd into true and false. (1.) A true *Proposition* represents Things as they really are, as, *Every Bird has Wings: Brutes are not insensible Machines.* (2.) A false *Proposition* is that which expresses Things otherwise than they truly be, as, *Birds have no Wings: Brutes*

Brutes are meer Machines without Sense. The first of these *Propositions* we commonly call a *Truth*, the *Truth and a* latter a *Lie* or *Falshood*. *Lie, what.*

Propositions (in the last Place) are divided with re- *Certain and* spect to their *Evidence* into *certain* and *doubtful*. *doubtful Pro-* (1.) A *certain Proposition* is that whose *Evidence* of *positions de-* the *Agreement* and *Disagreement* of the *Ideas* with *fin'd.*

their *Objects*, or of the *Predicate* with the *Subject*, is so *strong* and *plain* that we cannot forbear or delay our *Assent* thereto, as, *Every Circle hath a Centre: Brutes*

can see, hear, taste, smell, and feel Pleasure and Pain.

Propositions of this Kind make what we call *Know-*

ledge. (2.) *Doubtful Propositions* are such as have not their *Evidence* so *clear* and *strong* as to force *Assent*,

and by admitting *Obscurity* therein, permit us to sus-
pend our *Belief* at Pleasure, and absolutely prevent

Knowledge. As, *The Planets are inhabited: The Soul*

of Man is a spiritual Being, and survives the Body.

This sort of *Propositions* are what we call *Opinions.*

Propositions, according to their *Quantity*, are *Uni-*

versal or *Particular*; and they are *Affirmative* or

Negative according to their *Quality.* The *four Pro-*

positions hence arising, the *Schools* denote by the

Capitals A, E, I, O, thus:

A } denotes a { Universal } *Affirmative,* { All Men are Mortal.

E } { *Negative,* { No Men are Mortal.

I } { *Affirmative,* { Some Men are Mortal.

O } { *Negative,* { Some Men are not Mortal.

According to these Verses.

A affirms, and E denies, both universally.

I affirms particularly, and O does so deny.

OF these *Propositions*, taken two together, A O *Propositions* or E I make a *Contradiction*, or are *contradictory*; *Contradictory.* for they can never be both *true* and both *false* at the same time.

A E are *Contraries*, for they cannot be both *true*, *Contraries.* but may be both *false* together.

I O are *Subcontraries*; these may be both *true* *Subcontraries.* together, but cannot be both *false*.

A I or E O are call'd *Subalterns*: Wherein (1.) if *Subalterns.* A or E be *true*, I or O will be *true* also, but not the

contrary. (2.) If I or O be false, then will A or E be so of course, but not the contrary. (3.) They may be sometimes both true, and sometimes both false.

Conversion of Propositions, what.

THE Conversion of Propositions is when the Subject and Predicate change their Places with Preservation of Truth. This may be always done in E and I.

As { E No Spirit is an Animal. } converted. { No Animal is a Spirit.
I Some Passions are Evil. } { Some Evils are Passions.

BUT in A and O this Conversion or Reciprocation of Subject and Predicate will not hold; unless in A you convert with I, thus, * Every Weed is a Plant, therefore i some Plant is a Weed. But in O, though you may say, ° Some Vegetable is not a Weed, you cannot say reciprocally, Some Weed is not a Vegetable. So much for Propositions in themselves consider'd.

Of the third great Part of Logic, Argumentation, or Reasoning.

A Syllogism defined.

The Matter thereof twofold.

The Terms of a Syllogism, what.

THE Doctrine of Ideas and Propositions being dispatch'd, the next great Part of Logic is, in Order, Argumentation or Reasoning; for as we join Ideas to frame Propositions, so Propositions are join'd to form an Argument or Syllogism.

A Syllogism then is an Argument whereby we infer something that is less known, from Truths which are more evident. The Matter of a Syllogism is twofold, viz. (1.) The remote Matter, call'd the Terms; and (2.) The immediate Matter, which are the Propositions.

THE Terms of a Syllogism are the Parts of which the Propositions do consist, and into which the Syllogism is ultimately resolved. To illustrate this, suppose the Question were put, Whether God must be worshipped? An Argument or Syllogism form'd in order to prove this in the Affirmative, hath always three Terms. (1.) The greater Term; which is the Predicate of the Question, which here is the Worship queried. (2.) The lesser Term, which is the Subject of the Question, as here God. These two are call'd the extreme Terms. (3.) The middle Term, which is one arbitrarily chosen, and disposed in two Propositions, whereby to connect and shew the Agreement or Disagreement of the major and minor Terms in the other Proposition or Conclusion; and therefore this middle Term is sometimes call'd the Argument. In this Question, I take for the middle Term,

Term, the *Idea* or *Notion* of a *Creator* ; then the three Propositions of the *Syllogism* will stand thus.

Our ² *Creator* must be ¹ *worshipped* ;
 But ³ *God* is our ² *Creator* :
 Therefore, ³ *God* must be ¹ *worshipped*.

IN this *Syllogism* the Figures, 1, 2, 3, shew the Places of the *Major*, *Middle*, and *Minor Terms* in the Propositions ; and from such a Disposition of them, 'tis evident how natural and just the *Conclusion* or *Inference* is, to satisfy the *Question*.

THE immediate Matter of a *Syllogism* are three Propositions. (1.) The *Major* or *Greater*, which contains the *middle Term* connected with the *Predicate* of the *Question*, or *Major Term*. (2.) The *Minor* or *Lesser*, which connects the *Subject* of the *Question* with the *middle Term* ; and is sometimes call'd the *Assumption*. (3.) The *Conclusion*, which infers or asserts the *Point in Debate*.

IN a *Syllogism* we are farther to consider the *Figure* and *Mood*. (1.) The *Figure* of a *Syllogism* is the proper Disposition of the *middle Term* with the Parts of the *Question*. (2.) A *Mood* is the regular Determination of Propositions according to *Quantity* and *Quality*, i. e. their *universal* or *particular Affirmation* or *Negation*. These Moods are represented by *technical Words*, containing the *Vowels* A, E, I, O, which alone are regarded, and the *Consonants* all neglected.

There are three Figures.

In the <i>first</i> the <i>middle Term</i> is the Subject of the <i>Major Proposition</i> , and the <i>Predicate</i> of the <i>Minor</i> . This contains four Moods, viz.	{	<i>Barbara</i> . <i>Celarent</i> . <i>Darii</i> . <i>Ferio</i> .
In the <i>second</i> the <i>middle Term</i> is the <i>Predicate</i> of both the <i>Premises</i> . This contains four Moods also.	{	<i>Cesare</i> . <i>Camestres</i> . <i>Festino</i> . <i>Baroco</i> . <i>Darapti</i> . <i>Felapton</i> .
The <i>third</i> Figure requires that the <i>middle Term</i> be the Subject of both the <i>Premises</i> . It has six Moods.	{	<i>Disamis</i> . <i>Darisi</i> . <i>Bocardo</i> . <i>Ferison</i> .

Examples

First
Figure.Examples of the MOODS in the First
Figure.Bar-
ba-
ra.

- I. ¹ Every ² wicked Man is ¹ miserable ;
 All ³ Tyrants are ² wicked Men ;
 Therefore all ³ Tyrants are ¹ miserable.

Ce-
la-
rent.

- II. ² They who are always in Fear are ¹ not happy ;
³ Covetous Men are ² *always in Fear* ;
 Therefore ³ covetous Men are ¹ not happy.

Da-
ri-
i.

- III. ² Whatever exerts rational Actions has ¹ some Reason ;
 Some ³ *Brutes* exert ² rational Acts ;
 Therefore some ³ *Brutes* have ¹ some Reason.

Fe-
ri-
o.

- IV. ² Nothing mysterious can be a ¹ Part of true Religion.
³ Some call'd religious Opinions are ² mysterious ;
 Therefore ³ some call'd religious Opinions are ¹ no Part of true Religion.

Second
Figure.Examples of the MOODS in the Second
Figure.Ce-
fa-
re.

- I. ¹ Nothing should be despised that is ² God's Creature :
³ All Insects and Reptiles are ² God's Creatures ;
 Therefore no ³ Insect or Reptile should ¹ be despised.

Ca-
me-
stres:

- II. ¹ Every Part of Religion is ² clear and plain ;
 No ³ mysterious Doctrine is ² clear and plain ;
Ergo, No ³ mysterious Doctrine is ¹ any Part of Religion.

Fe-
sti-
no.

- III. ¹ No Sin is ² excusable ;
³ Some Faults are ² excusable ;
Ergo, ³ Some Faults are ¹ not Sins.

IV. ¹ Every

Ba- IV. ¹ Every Part of Religion is ² rational ;
 ro- ³ Some Parts of Popery are not ² rational ;
 co. Ergo, ³ Some Parts of Popery are not ¹ Religion.

Third Figure, Examples of the Moods in the Third Figure.

Da- I. ² All Liars are ¹ hated of God :
 rap- ² All Liars are ³ Men :
 ti. Ergo, ³ Some Men are ¹ hated of God.

Fe- II. ² None who believe in Christ ¹ shall be damned ;
 lap- ² All who believe in Christ ³ have sinned :
 ton. Ergo, Some who ³ have sinned shall not ¹ be damn'd.

Di- III. ² Some Opinions are ¹ said to be damnable.
 fa- ² All Opinions are ³ necessary Acts of the Mind.
 mis, Ergo, Some ³ necessary Acts are ¹ said to be
 damnable.

Da- IV. ² All wise Men are ¹ happy ;
 ti- ² Some wise Men are ³ very poor :
 si. Ergo, ³ Some very poor Men are ¹ happy.

Bo- V. ² Some sort of War is ¹ not to be avoided.
 car- ² All War is ³ bloody and hostile.
 do. Ergo, Some ³ bloody Hostilities are ¹ not to be
 avoided.

Fe- VI. ² No Afflictions are ¹ pleasant.
 ri- ² Some Afflictions are ³ good and necessary.
 son. Ergo, Some ³ good and necessary Things are ¹ not
 pleasant.

*Three special
 Rules con-
 cerning the
 Figures.*

THERE is a *fourth Figure* of *five Moods* added by some, but not worth mention in this Epitome. The *special Rules* of the three Figures are these. (1.) In the *first*, the *Major Proposition* must always be *universal*, and the *Minor Affirmative*. (2.) In the *second* also the *Major* must be *universal*, and *one* of the *Premises*, with the *Conclusion*, always *Negative*. (3.) In the *third*, the *Minor* must be *Affirmative*, and the

the *Conclusion* always particular. The *Syllogisms* hitherto treated of are *Simple*; I shall next take notice of

Of Complex
Syllogisms.

Complex Syllogisms, which are so call'd because the *middle Term* is not connected with the *whole Subject*, or the *whole Predicate* in two *distinct Propositions*, but is intermix'd in a confused Manner, and compared with them by *Parts*. As

The Devil is a wicked Spirit.

Some *Indians* worship the Devil.

Therefore some *Indians* worship a wicked Spirit.

HERE the Predicate of the Conclusion is—*worship a wicked Spirit*; Part of which is join'd with the middle Term *Devil* in the *Major*, and the other Part in the *Minor*. This may be reduced to a *simple Syllogism* of the *first Figure*, in the *Mood Darii*, thus:

Da-
ri-
i.

The Devil is a wicked Spirit.

What some *Indians* worship is the Devil.

Ergo, What some *Indians* worship is a wicked Spirit.

Though the Conclufiveness of the Argument in its *complex State* was obvious enough without this *Reduction*.

Four Sorts of
Conjunctive
Syllogisms.
Hypothetical.

Conjunctive Syllogisms are those wherein the *Major Proposition* has distinct Parts connected together by some *Conjunction* or Particles of Speech; the Principal of which are four, viz. (1.) A *Hypothetical Syllogism*, when the *Major* or *Minor*, or both, are conditional Propositions; as,

If there be a God, the World is govern'd by Providence;

But there is a God; Ergo,

The World is govern'd by Providence.

Disjunctive.

(2.) A *Disjunctive Syllogism* is when the *Major Proposition* is *Disjunctive*; as

The Planets are either inhabited or usefess.

But they (as the noble Works of God) are not usefess.

Ergo, The Planets are inhabited.

(3.) A

(3.) A *Relative Syllogism* requires the *Major Proposition* to be *relative*; as

Where the Treasure is, there will the Heart be;
But a Miser's Treasure is in his Bags:

Ergo, His Heart is there too.

Or, A Saint's Treasure is in Heaven;

Ergo, His Heart is in Heaven also.

(4.) A *Connective* or *Copulative Syllogism* is that *Connective* or *Copulatives*; as,

No Man can serve God and Mammon;

The Covetous Man serves Mammon;

Ergo, He cannot serve God.

Or, The true Christian serves God;

Ergo, He cannot serve Mammon,

THE Force of Argument in this kind of *Syllogisms* depends on the Truth of the *Major Proposition*, which therefore you ought to be well assur'd of.

Compound Syllogisms come next in Order to be considered; these are made up of two or more *single ones*, and may be resolved into them. Of this Sort are these four, viz.

(1.) *Epichirema*; which shews the Reason or Proof of the *Major* or *Minor*, as it proceeds to the *Conclusion*; as,

Sickness may be good for us; for it shews us our Frailty, the Emptiness of worldly Enjoyments, and makes us think of Dying, &c.

But we are uneasy under Sickness; which we manifest by Impatience, Complaints, Groanings, &c.

Ergo, We are sometimes uneasy under that which is good for us.

(2.) *Dilemma*; this is a sort of Argument wherein the whole is divided into all its Parts or Members, and then infers something concerning each Part, which is finally infer'd of the whole Question. Thus,

In

In Heaven we shall either have or not have Desires ; if we have no Desires, then we have *full Satisfaction* ; if we have Desires, they shall be satisfied as fast as they arise :

Ergo, In Heaven we shall be compleatly satisfied or happy.

Prosyllogism, what.

(3.) A *Prosyllogism* ; this is when two or more *Syllogisms* are so connected together, that the *Conclusion* of the former is the *Major* or *Minor* of the following one. As thus,

The Acts of the Soul in Man are *Thought, Will, Memory, Design, Reason, Understanding, &c.*

But all these Actions are discernible in Brutes.

Therefore the Agent or Soul is of the *same Nature* in Men and Brutes.

But, since the *Soul* of *Men* and *Brutes* are of like Nature ; and 'tis granted the *Soul* of *Brutes* die with the Body : Therefore also does the *human Soul* die with the Body.

Sorites, what.

(4.) *Sorites* ; this is when several *middle Terms* are chosen to connect one another *successively* in several *Propositions*, till the last *Proposition* connects its *Predicate* with the first Subject. Thus St. Paul saith,

Whom he foreknew those he predestinated ;

Whom he predestinated he also called ;

Whom he called he justified ;

Whom he justified he glorified ;

Ergo, Whom he foreknew he glorified.

Of Defective Syllogisms.

To these *Compound Syllogisms*, which are also *Redundant* ones, may succeed the *Defective Syllogisms*, or such wherein the *Major* or *Minor Proposition* is wanting or not *express'd*. Of this Kind are the following.

An Enthymem, what.

(1.) An *Enthymem*, which hath one of the *Premises* *suppress'd* or *understood*. Thus ;

Religion is known by good Morals.

Ergo, A Knave is not a religious Man.

Again, The fixed Stars shine with their own native Light ;

Ergo, The fixed Stars are so many Suns.

(2.) *Induction* ;

(2.) *Induction*; this from the *Species* infers the *Induction*, *Genus*, or from the *Parts* concludes of the *Whole*. *what*.

As thus,

Socinianism cannot be proved from the *Gospels*, nor from the *Acts* of the *Apostles*, nor from the *Epistles*, nor the *Book of Revelation*:

Ergo, It cannot be proved out of the *New Testament*.

(3.) *Example*; this is so usual a *Topic* as needs no *Example*, *Definition*; as, *what*.

Astronomy hath been studied by *Kings*;

Ergo, None are too great to study *Astronomy*.

Again; *Christ himself* was baptized:

Ergo, His *Disciples* should not be ashamed of it.

THESE are the various *Kinds* of *Arguments* made *Paralogism* use of in just Reasoning; which if they be form'd according to the proper *Rules of Ratiocination*, they are said to be *true Syllogisms*; if they disagree therewith, they are called *Paralogisms*, or *wrong Reasoning*. But when a *false Argument* puts on the *Face* and *Appearance* of a *true one*, then it is properly call'd a *Sophism* or *Fallacy*; and he who contrives it, a *Sophist* or *Sophist* *Sophist or* *ster*; and such an *Art of circumventing and deceiving* *Sophister, and* by *false and deceitful Arguments* is call'd *Sophistry*. So *Sophistry, what* a *Sophister* can frame an *Argument* to prove that *Heaven* is not worth a *Penny*; thus,

Nothing is better than *Heaven*;

But a *Penny* is better than nothing;

Ergo, A *Penny* is better than *Heaven*.

THIS *Sophism* is founded in *Equivocation*; for the *A Caution* Word or *middle Term*, *Nothing*, is used in a *positive* concerning *Sense* in the *Major*, but in the *Minor* it is used in a *Sophisms* quite opposite or *negative Sense*. Therefore in all *Ratiocination* the Words ought to be explain'd very clearly, and the *Premises* well proved and established, before the *Conclusion* can be admitted; and the *Argument* be free from the *Imputation of Deficiency* or *Sophistry*; and he who uses it, from that of a *weak Person* or a *Deceiver*. Thus much shall here suffice for

for *Syllogism* and *Argumentation*. We now proceed to the last great Part of *Logic*, viz.

Of the fourth and last Part of *Logic*, call'd *Disposition*, or Art of *Method*. *Method*, in a *dialectical* or *logical* Sense, is the *Disposition* of a variety of *Thoughts* on any *Subject*, in such an Order as is best suited to a clear and just *Method* of *Reasoning*, and is most proper to convince the *Mind* of *Truth* and *Error*, and thereby to gain *Belief* and *Assent* thereto.

It is twofold, *Natural*, and *Arbitrary*. *IT* is distributed into two general Kinds, viz. (1.) *Natural*, and (2.) *Arbitrary*. *Arbitrary Method* leaves the Order of *Nature*, and accommodates itself to particular Views and indifferent Purposes; and is mostly used by *Historians*, *Orators* and *Poets*.

Natural Method, what. *Natural Method* is that which observes the Order of *Nature*, and proceeds in such a manner as that the *Knowledge* of the Things which follow, depends in a great measure on the Things which go before; and this is twofold, viz. *Synthetic* and *Analytic*; and absolutely, *Synthesis* and *Analysis*.

Synthetic, or that of *Composition*. *Synthetic Method* is that of *Composition*; which begins with the *Parts*, and proceeds to the *Knowledge* of the *Whole*; or with the *Individuals* or *Species*, and goes on to the *Species* or *Genus*. It first teaches the *Nature* of the most simple *Principles*, and proceeds on general *Truths* till it arrive by *Degrees* to a *Notion* of that which is drawn from or compounded of them.

Exemplified in *Geometry*. This *Method* is generally used in teaching the *Arts* and *Sciences*. For Instance, *Geometricians* begin with *Definitions*, *Postulates* and *Axioms*; then proceed to the *Contemplation* of *Points*, *Lines*, and *Angles*; from hence to the various *Properties* of *superficial Figures*, as *Triangles*, *Squares*, *Parallelograms*, and *Circles*, &c. which are compounded of the former: From hence they ascend to the more complex *Doctrine* of *Solids*, and shew their several *Natures*, *Affections*, *Relations* and *Properties*, arising from their *Composition* of the foregoing *Superficies*. And thus they exhibit a compleat *System* of that *Knowledge* which is call'd *Geometry*; but in a *Method Synthetical*, and by various *Gradations*.

Analytic, or that of *Resolution*. *Analytic Method* is that of *Resolution*; this considers the whole *Compound* at first in a general Manner, and then leads us into a more perfect *Knowledge* of it, by resolving

resolving it into its *first Principles* or *component Parts*, whether *Species* or *Individuals*, and describes the *Natures* and *Properties* of each of them separately; and thus you obtain the Knowledge of the Whole compleatly. This Method has place in teaching the *Philological Sciences*, as *Grammar*, *Rhetoric*, *Logic*, *Metaphysics*, *Poetry*, *Philosophy*, &c. as also in *Anatomy*, *Algebra*, &c. And indeed in many Cases both the *Synthetic* and *Analytic* are conjoin'd, the better to *find out Truth*, and to *communicate it*. *Where used.*

THE Rules of good Method, whether *Analytic* or *Synthetic*, are compris'd under the following Heads. *The Rules of good Method.*
 (1.) It must be *safe*, your Propositions *firm* and *well grounded* in every Respect, that so they may be secure from Error. (2.) It should be *plain* and *easy*, that so it may exhibit a *clear* and *comprehensive View* of the whole *Scheme* and *Design*. (3.) It should be *distinct*, and *free* from all perplexing Mixture of Things which ought to be kept separate, that so *Confusion* may be evited. (4.) It should be *plenary* or *full*, so that nothing may be *wanting* that is *proper* and *necessary*. (5.) It should be *short*, or without *Superfluity*, and the whole conducted with a well-concerted *Brevity*. (6.) It should be *proper* to the *Subject* in hand, to the *present Design*, as well as to the *Age* and *Place* wherein you live. (7.) The Parts of the Discourse should be well *connected*, *dependent*, and *cohering* by proper and graceful Transitions; by which means the Reader is so insensibly entertain'd, and led on, that he knows not how to leave off till he hath arrived at the End.





Of METAPHYSICS, or ONTOLOGY; or the SCIENCE of BEING abstractedly consider'd.

ONTOLOGY
defined.



ONTOLOGY is a Science which treats of *Being* or *Entity*, and its *Properties*; and that abstractedly in its own simple Nature, and not as it relates to *Bodies* and *Forms*, which is the Business of *Physics* or *Natural Philosophy*; or to *Quantity*, which is of a *Mathematical Consideration*; but absolutely as it relates to the *Existence* of all Things indifferently. This Doctrine was formerly call'd *Metaphysics*.

Being, Entity, and Existence, what.

Being, Entity, and Existence, are all synonymous Words, and only signify the State of that which is or doth exist, purely as existing; infomuch, that all particular *Ideas*, of *Body*, *Form* or *Quality*, are excluded, since *Being* is the absolute original State, and primary Property necessary to all of them.

The same in a restrain'd Sense.

BUT the same Words *Being, Entity, Existence*, when used in a more restrain'd Sense, do also signify *Things themselves* which do exist; but then it is simply and purely with regard to them as such, i. e. as *Things existing* only, without any Reference to *Modes* or *Qualities* inherent in them. As when we say, The Planets may be inhabited by some Sort of *Beings*: The *Fairies* are not real but imaginary *Beings*, &c. Tho' the Word *Beings* is more commonly used than *Entities*, and *Existence* never in the *Plural*, and seldom in the *Singular* to express the *Thing existing*.

The Subject of Ontology.

IN this Sense, *Being* or *Entity* is the Object of this Science, which occasion'd it to be call'd *Ontology* by the *Greeks*, that Word with them importing the Doctrine of *Beings abstractedly consider'd*; and since the

Notion

Notion of Being or Entity in the Abstract is the very Soul of this Science, it will be necessary to explain, in the next Place, what Abstraction is, and what is meant by Being in the Abstract.

ABSTRACTION, then, is that Faculty of *Abstraction* the Mind, whereby we consider, and contemplate the *what.* various *Relations, Properties, and Qualities* of Bodies, *alone*, or as they are *in themselves*, and not as they are in the Bodies. By this Act of the Mind, we as it were separate and withdraw it from the Body, and all other *Modes and Relations*, and view it *in itself*; and thus (to speak with the Schools) we deduce a Thing from a *singular* to an *universal State*. *Abstraction* is of two Kinds, *viz. Precisive and Negative.*

Precisive Abstraction is when we consider those *Of Precisive* Things apart, which cannot really exist apart; as *Abstraction.* when we consider a *Mode or Property* apart from the *Subject*, or one *essential Mode* without another. Thus I can consider that which we call *white* in a *Wall*, but in my Mind I can *abstract* this from its *singular State*, in its *Subject* the *Wall*, and consider it in a more *universal State*, as a *Quality* which I call *Whiteness*; and find it may be attributed to a great Variety of Subjects, as *Milk, Snow, Chalk, Eggs, &c.* Thus the *round Shape* of a *Globe*, I abstractedly consider as a *Quality*, and find it, as such, in several other Subjects, and of different Kinds; as the *Roundness* of a *Circle*, the *Roundness* of a *Cylinder, &c.* Also *Whiteness* and *Roundness* may be consider'd apart, not only from the Subjects the *Wall* and the *Globe*, but distinctly from all other *Modes and Relations* belonging to them, as *Height, Solidity, Weight, &c.*

Negative Abstraction is when we consider one Thing *Of Negative* separate from another, which may also exist without *Abstraction.* it. As when we conceive of a *Subject* without regarding its *accidental Modes and Relations*; or when we conceive of one Accident without thinking of another. As when I conceive the *Idea* of a *Needle*, without the *Idea* of its *Sharpness*, it is a *Negative Abstraction*; and it is the same when I think of a *Book*, without the *Idea* of *Reading or Writing*; or when I think of *reading* without considering the *Manner*, whether *Vocally or Mentally.*

When Things are said to be in the Abstract or Concrete.

THINGS thus conceived of, or represented apart from the Subject, in the Manner as above described, are said to be in the *Abstract*; but when they are particularly consider'd with or *inherent* in their Subjects, they are then said to be consider'd in the *Concrete* or *Subject*. Or thus, we say, *white, round, tall, witty, weighty, lively, dead, mortal, &c. in the Concrete*; but, in the *Abstract*, we say, *Whiteness, Roundness, Tallness, Wittiness, Weightiness, Liveliness, Deadness, Mortality, &c.*

HAVING thus distinguished or specified the Manner of *Conception* of *Being* or *Existence* in our Minds; I shall next enumerate the *Kinds of Being*, and then the *peculiar Properties* belonging thereto, and which distinguish them from one another.

Of the Kinds of Being, substantial and modal.

I think all *Being* in the Universe may be distributed into two *General Kinds*, viz. (1.) *Material* or *Substantial*, that is, the *Being of Substance* or *Matter*. (2.) *Modal* or *Formal*, which respects the *Being of Modes, Forms, Qualities, and Relations*, either inherent in, or accidental to *Substance* in general, or its Parts in particular. Besides these two *Sorts of Being* there are no other, that I know of.

Substantial Existence is either Spiritual or Corporeal.

BUT then each of these contain their *Species*, or lesser *Kinds*; and these again, their numerous *Subdivisions*, and *Individuals*. Thus with regard to *Substance, material Being* or *Existence* may be distinguish'd into (1.) *Incorporeal* or *Spiritual*, or the *Being* or *Existence* of such Things as we do not, or cannot properly call *Body*, but *Spirit*. (2.) *Corporeal*, or the *Existence* of *Bodies*. I have here designedly avoided the old, tho' commonly receiv'd Distinction of real *Beings* into *Material* and *Immaterial*, which I take to be absurd and inartificial; because all real *Being* must be that of *Realities*, and not *Non-entities*; and all *Realities* being *positive* Things, must consist of something, and that Something is in itself *homogeneous*, and universally the same in the *Essence* of all real *Existences*, is the *Basis* of all *Essences*, and the same we call *Substance* or *Matter*; and consequently all *positive Existence* is that of *Matter*, and therefore *material*, wholly, and no Part *immaterial*.

No Beings properly immaterial.

IN order to have a true Notion of *spiritual* and *corporeal Existence*, we must first have a clear and distinct *Idea*, or true *Definition*, of what Spirit and Body are, and how they differ.

SPIRIT, Mr. *Watts* defines to be *Power of Spirit defined Thinking*; but I can by no Means think this a *just* by Mr. *Watts*, *Definition*: For, if by *Power*, Mr. *Watts* means only but not *justly*. the mere *cogitating Faculty*, as I think it is plain he does, then it is so far from including any *Notion* or *Idea* of *Substance* (which yet he affirms *Spirit* to be) that it is only a mere *Mode* or *Property* of some particular *Substances*: For, can any one who believes *Substance* to be *Matter* extended, think that this *Idea* agrees in any wise with the *Idea* of *Power* or *Faculty* of doing any thing in general? If not, it can't be thought to agree with the *Idea* of any particular Sort of *Power*, tho' the most *noble*, or that of *Thinking*. The *Power of Thinking* is self-evidently nothing but a *Mode of Being*, and cannot subsist of itself, abstract from a *Subject* or *Substance*.

I shall therefore define a *Spirit* to be a *Substance*, of *A true Definition of a most subtile and (to us) insensible Texture and Form*, *possession of all the Faculties and Powers of Mind and Spirit*. *Intellect in various Degrees of Perfection*.

BODY I also thus define; *It is a gross Substance, Body defined. obvious and perceptible by some or all the animal Senses, indifferent to the Power of Thinking, and endow'd with great Variety of Forms and Qualities in the several Species thereof.*

THE principal Differences therefore of *Spirit* and *Body* consist in the following Particulars. (1.) The Substance of Spirits is incomprehensibly *fine* and *subtle*, so as to pervade the Pores of the most solid Mass of Matter; but that of Bodies is of a *gross Texture*, and renders them *Obstacles* to each other. (2.) The *Form and Substance of Spirits* are naturally *insensible* to us; that is, we can neither *See*, *Hear*, nor *Feel* them; yet are they capable of presenting themselves on some Occasions to those Senses. But all *Bodies* are sensible by us in part, and most are wholly so. (3.) All *Spirits* are naturally *cogitative*, or endow'd with the *Power of Thinking*; whereas this Faculty is not *essential* to Bodies; some being possessed therewith, and others not. (4.) *Spirits* are not the Sub-

jects of *human Knowledge or Converse*, but *Bodies* naturally are; of these we know many things; of those nothing, unless by *Revelation*, or other supernatural Means.

The Kinds of
spiritual Be-
ings.
God.

Son of God.

Holy Ghost.

Angels.

Their three-
fold Hierar-
chy.

Of good and
bad Angels.

THE principal Things relating to these *incorporeal Essences*, or *Spirits*, taught us by *Revelation*, are the following. (1.) That *God* himself is a *Spirit*, and infinitely the most perfect of all others; whose high *Dignity*, and singular *Majesty*, we call the *Godhead*, or *Deity*. (2.) That next to *God*, there is another Being, originally a *pure Spiritual Essence*, which in time assum'd thereto a *Corporeal Substance* or *Body*, of a most excellent and superlative Nature, who therefore is call'd the *Son of God*, or next to him in *Dignity*. (3.) We are inform'd also, that in the third Degree of the *Scale of spiritual Essences*, is one of a peculiar Nature; having a near Relation to the other two, and from his Office has the Name of *Holy Ghost*, as being the *Sanctifier* of Men. (4.) At an immense Remove from these, we find a fourth Class of *incorporeal Substances*, call'd *Angels* by us, but by the Heathens *Dæmons*, *Genii*, &c. concerning which we read of various Denominations, Numbers, and Subordinations; which latter is call'd the *Hierarchy* of *Angels*, and is usually reckon'd threefold, viz. The first *Hierarchy* contains the three most honorary Orders, call'd *Seraphims*, *Cherubims*, and *Thrones*. The second *Hierarchy* consists of three intermediate Orders, call'd *Dominions*, *Virtues*, and *Powers*. The third *Hierarchy* contains the three lowest Orders, call'd *Principalities*, *Arch-angels*, and *Angels*.

CONCERNING *Angels* we have also a farther Account; that they were originally all *pure, perfect, holy*, and *divine Spirits*, and minister'd the *sovereign Power* and *high Commands* of the *Deity* to inferior created Worlds; but that in Time some proved treasonable and disobedient to the *Majesty* of Heaven, who therefore expell'd, rejected, and cast them down from the celestial Abodes, and blissful State they before enjoy'd; whereupon they became enraged against *God*, and are said ever since to go up and down spreading Evils over the Moral World, and seeking the Destruction of Mankind from a Principle of Revenge and Hatred to *God*. These are therefore by us call'd

evil

evil Spirits, wicked Angels, and in common, Devils. The good Angels, who continued in their State of native Rectitude and loyal Obedience, are call'd *good Angels*, and *Sons of God*; whose Business and Office it is, to minister for those who are Heirs of Salvation.

ONE thing more Revelation teaches us concerning Angels, and that is, that they have a Power of assuming any visible Form or Shape, and becoming the Objects of our Senses; we are inform'd of several Instances of this Nature, which is call'd the *Apparition of Angels*. In this Case, they have often appear'd in *human Shape*, and exerted *human Actions*; as *Talking, Eating, Drinking, Sleeping, Washing, &c.* This I take to be confirm'd by the *Apparition of Spirits*, which many times appear in the Persons of *deceased Men and Women*; and are therefore said to be their *Apparition or Spirit*. For since Angels are conversant in all inhabited Worlds, and are doubtless well acquainted with the State and Exigencies of People, and have the Power of assuming a visible or sensible Form, why should it not be thought most reasonable for them to be permitted, on some Occasions, to personate particular Persons after their Decease? I see nothing absurd in this Supposition; as I can see nothing rational in that which makes these *Apparitions* to be the *Souls* of the departed, whom they represent.

Apparition of Angels.

The same as the Apparition of Spirits.

FOR notwithstanding the Antiquity and Universality of the Doctrine of the *Soul's Existence*, and the many Efforts of the most learned Pens to support it, I have never yet been able to see any thing of Reason or Truth therein sufficient to render it *credible*, or indeed *intelligible*. The grand Principle on which this Opinion is receiv'd, is, That mere Matter cannot think; 'tis granted it cannot; and 'tis also as evident, that mere Matter cannot move of itself, yet it does not follow that it is incapable of *Motion*, of which we know it is easily susceptible. Why then should it be thought *incapable of the Power of Thinking* from the Divine Being? I have not seen it proved a *Contradiction* by its greatest Oppugners; yea, so far is it from that, we have frequent Examples of mere Matter's being immediately endow'd with the *Power of Life and Thought* by the divine Omnipotence; witness *Moses's Rod*. Was it not mere Matter one Moment, and a

The Doctrine of the Soul's Existence not rational.

Matter may be endowed with the Power of Thinking.

Exod. iv. 31

Exod. viii. 16. *cogitative Animal* the next? Is not *Dust*, mere *Matter*? And did not God immediately convert it to *Animals*, by endowing it with *Life* and *Thought*? Again, did not the short-lived *Serpent* immediately return to its pristine *lignous State*? Would it not be wretched *Futility*, and a *trifling Evasion*, to say, God instantly inspired the *Rod* and the *Dust* with *Souls*, and then deprived them of them again? It is evident, therefore, that mere *Matter's* being capable (by the *Almighty Power*) of the *Faculty of Thinking*, is no longer an *Opinion*, but *real Fact*; and consequently the *Bodies of Men* and other *Animals* are render'd capable of *Life* and *Thought*, on Principles more rational and intelligible, than that of the *Existence of Souls*; which is a mere *Ens Rationis*, or *Phoenix of Ontologists*, as I think would be no hard *Matter* to make appear, were this a proper Place for such *Disquisitions*.

A Distribution of Corporeal Beings.

Animals. Vegetables.

Inanimate Matter.

The several Modes and Affections of Being enumerated.

THE several Kinds of *incorporeal Beings* or *spiritual Substances* being enumerated, I shall proceed to mention the principal of the other Class, *viz. of Corporeal Substances*, or *Bodies*. The most proper Distribution of these, is into the three following *Genera*. (1.) *Animals*, which are endued with the Properties of *Life*, *Sense*, and *Thought*. (2.) *Vegetables*, which are such *Bodies* as have a Power of *growing* and *increasing* by a special *organical Disposition of Parts*, in various determinate or *generical Forms* and *Sizes*; as *Herbs* and *Trees*. (3.) *Bodies absolutely inanimate*, or which have neither an *animal* nor *vegetative Life*; as *Earth*, *Water*, &c. To each of these *Kinds* belong divers *Species*, and those *Species* have their numerous *Individuals*; which will be the Subject of *Physiology* to contemplate, and shall therefore omit them here.

Substantial Existences or *Essences* being thus consider'd, I should next have treated of the *modal Kinds of Being*, as *Properties*, *Forms*, *Qualities*, *Adjuncts*, *Relations*, *Ideas*, *intellectual Notions*, &c. but most of these having been already treated of in *Logic*, as being the proper Subject of that Art, I shall refer the Reader thither for an orderly View of them; and here proceed to the *Speculations* of that Kind which remain, and are more directly of a *Metaphysical Nature*. And they are as follow. (1.) *Nature and Essence,*

fence, and Nihility. (2.) Matter. (3.) Mind. (4.) Power and Action. (5.) Necessity, Contingency, and Liberty. (6.) Possibility, Impossibility. (7.) Identity and Diversity. (8.) Corruptibility and Incorruptibility. (9.) Dependency and Independency. (10.) Simplicity and Composition. (11.) Communicability and Incommunicability. (12.) Creation, and Things created. (13.) Finite and Infinite. (14.) Principles, Causes, and Effects. (15.) Natural, Moral, and Artificial. (16.) Permanency and Succession. (17.) Absolute and Relative. (18.) Subject and Adjunct. (19.) Number. (20.) Order. (21.) Time. (22.) Ubiquity or Place. (23.) Unity, Union, and Plurality. (24.) Verity or Truth. (25.) Goodness and Perfection. (26.) Signs and Representations of Things. These Particulars defined and explained, will nearly exhaust the remaining Part of *Ontology*. To begin with the first.

By *Nature* we are to understand that peculiar *Modification* of Matter united with such *specific Properties* and *Qualities*, as make that thing to be what it is, and different from all others. Thus the *Nature* of Fire consists in the extreme *Subtlety, Agitation, Lucidity*, and *painful Action* of its Particles, on sensible Matter. The *Essence* of a Book is many Leaves bound together; and the *Nature* of an *Animal* is Matter endow'd with *Life and Sense*.

Of Nature and Essence.

By the *Nature of Things*, is often meant, in a general Sense, the eternal, establish'd and unalterable Reason and Relation of Things; as that of *three to five*, which must ever make *eight*, according to the *Nature of Things*. Sometimes this Phrase also signifies the *constant Order and Course of Action* in *secondary Causes*; as the Succession of *Day and Night*, the Seasons of the Year, the *annual Production and Blooming* of Vegetables, &c. Any Irregularities in this respect are said to be *besides Nature*, as *Monsters*; or *above Nature*, as *Miracles*; or *contrary to Nature*, as *Sodomy* or *Buggery*.

The Nature of Things, what.

As *Nature* or *Essence* always implies the *positive Existence* of *substantial Beings*, so where there is no *real Essence*, there can be no *real Existence*; and consequently *Darkness* and *Shadow*, which are only the Absence of *Light*; and *Space*, which is only the Absence of *Body*; are no *real Essences*, but mere *Nihilities*.

Space and Shadow mere Nihilities.

lities or *Non-entities*; at least, have only a *modal Existence* in the *Ideas* of our *Minds*.

Of Matter or Substance.

Matter or *Substance* is that mysterious unknown Somewhat whereof all Bodies consist, and seems to be uniform, homogeneous, or of the same Nature in all Bodies, diversified with great Variety of *Forms* and *Qualities*, hereafter to be described. The *Matter* of a Body is either *proxime* or *remote*: The *proxime* *Matter* of which a Book is made is *Paper*, *Ink*, and *Covers*, &c. But the *remote* *Matter* is that whereof the *Paper*, *Ink*, and *Covers* are made.

Of the Mind, and wherein it consists.

Mind is that *primary* and *noble* *Power* or *Faculty* communicated by the Divine Being to some Bodies, possess'd of animal Life and Sense; whereby they are render'd capable of *Thinking*, *Understanding*, and *Ratiocination*. The *Breath of Life* being inspired into a Body, it immediately becomes a *living Soul*; that is, a *cogitative* and *sensitive* Body, an *Animal*. The *Senses* first of all supply the *Mind* with *Ideas*, the proper Subject of its *Actions*, which are many; as *Perception* or *Thought*, *Judgment*, *Reason*, *Imagination*, *Reflection*, and *Volition*, or *Will* and *Choice*, *Comparison*, &c. By reason of the *Mind*, animal Bodies are affected with various *Passions*, as *Love*, *Hatred*, *Hope*, *Fear*, *Admiration*, *Disdain*, *Joy*, *Sorrow*, and many others. All these *mental Actions*, and *Passions*, with their *subject Matter*, do together constitute but *one individual Being* or *Essence*, of several Kinds, to be hereafter enumerated in their proper Place.

Of Power, and Action.

Power is that Affection of Being which consists in a Capacity or Ability therein *to be*, *to do*, or *to suffer*. *Action* is the Exercise of that *Power* *to be*, *to do*, or *to suffer*. Hence *actual Being*, *Doing*, or *Suffering*, is often used in Contradistinction to *potential Being*, &c. the *former* denoting that which is real and present; the *latter*, that which doth not now exist, but hath a mere Possibility of doing so. As a Child that will or may be born hereafter, hath not now any *actual*, but only a *potential Being*. There are abundance of Distinctions of *Power*, as *Corporeal*, *Vegetative*, *Animal*, *Natural*, *Acquired*, &c. as also of *Action*, as into *Immanent*, *Transient*, *Natural*, *Supernatural*, *Accidental*,

Accidental, Free, Necessary, Moral, &c. which are all easily understood by their bare Denominations.

Necessity is of two Kinds; (1.) *Necessity of Existence.* (2.) *Necessity of Action.* *Necessity of Existence* is a very obscure Idea, and signifies a *Thing is because it must be*, or because its *Not-being* would imply a *Contradiction* to its *Nature*. Thus *God* is said to exist *necessarily*, or without any *pre-existent Cause*. *Necessity* in this Case is opposed to *Contingency*, which is only the *Being* or *Existence* of *Things*, which might *not have been*, and *may cease to be*. *Necessary Existence* is without a *Cause*, and *independent*; *contingent Existence* is the *Effect* of a *Cause*, and *dependent* thereon. Again, *Necessity of Action* is that which is founded in the *Nature* of *Things*, and must produce the *Cause* of that *Action*. This is sometimes call'd *Fate* or the *Fatality* of *Actions*; and is opposed to *Liberty* or *Freedom*, which is indeed applied to the *Will*, and consists in a *spontaneous* or *voluntary chusing* or *refusing* of what it thinks fit. There are the following *Distinctions* of *Necessity*, viz. (1.) *Natural*; by this *Water* congeals with *Cold*, and *Ice* melts with *Heat*. (2.) *Logical*; thus a *Conclusion* necessarily flows from the *Premises* of a *Syllogism*. (3.) *Moral*; thus 'tis morally necessary that intelligent *Beings* should worship *God*; that *Virtue* should be *free*, to deserve *Reward*, &c,

Necessity of two Kinds, Existence and Action.

Necessity of Existence. Contingency.

Necessity of Action. Fate. Liberty.

Natural, Logical and Moral Necessity.

Possibility is that *Affection* of *Being*, which consists in having all the *Ideas* which are supposed to make up its *Nature*, such as may be *actually united*, and have no *Inconsistency*; as a *Mountain of Gold*, or a *River of Oil*. But where *Ideas* are *inconsistent* and *incompatible* with each other, and can't be *united*, there ensues *Impossibility*: As, *cold Fire*, or *silent Thunder*. *Impossibles* may be distinguish'd into four *Sorts*, viz. (1.) *Metaphysically* or *Absolutely so*, in the abstract *Reason* and *Nature* of *Things*, as a *square Circle*, or *circular Triangle*, a *thinking Statue*, a *scarlet Sound*, a *Busbel of Souls*, &c. (2.) *Physically* or *Naturally*, i. e. according to the present *Laws* of *Nature*; as three *Eclipses* in a *Month*; a *Day* in our *Latitude* 20 *Hours* long; a *perpetual Motion*, &c. (3.) *Morally*, i. e. improbable in the highest *Degree*, and which we can have no *Reason* to believe; as, that an *Atheist* can

Possibility and Impossibility.

Impossibles of four Kinds. Metaphysical.

Physical.

Moral.

Conditional.

*Of Identity,
and Diversity.*

*Is real or
modal.*

Similitude.

Similarity.

Equality.

Diversity.

Dissimilitude.

Difference.

Distinction.

Disparity.

Opposition.

Contrariety.

Contradiction.

can be *virtuous* or *happy*; that an *Hottentot* should compose a System of *Ontology* or *Mathematics*; that a *Momus* or *Zoilus* should forbear *Calumny*, and vilifying Men and Works of Merit. (4.) *Conditionally*, or which is render'd *impossible* by putting in some *Condition*; as a Tree's bearing *Fruit* on Supposition it has no *Bloom*, the building a *Castle* in the Air, &c.

Identity or the *Sameness* of Being, is that Affection which consists in one and the same Number of Particles, of the same peculiar Qualities, which constitute the *Essence* or *Nature* of a Thing. And if the Essences of Things be not *numerically* the same; and have not a perfect Agreement of all their *Properties* and *Qualities*, they are said to be *diverse*, and their *Habitude* to each other is call'd *Diversity*. *Identity* is *real*, or *modal*, as it particularly respects the *Essence* or *Modes* of Beings; though that which respects the *Qualities*, is properly call'd *Likeness* or *Similitude*; or when it relates to the *Shape* or *Figure*, it is call'd *Similarity*; if to the *Quantity*, it is call'd *Equality*. On the contrary, a *Disagreement* in Substance or Essence is call'd *Diversity*; in *Quality* 'tis *Dissimilitude*; in *Quantity* 'tis call'd *Difference*. The pointing out the Difference between two Things, is call'd *Distinction*. *Disparity* is a Difference of *Species* under the same *Genus*, as *Yellow*, *Green*, &c. *Man*, *Brute*, &c. are said to be *Disparates*. *Opposition* is a perfect or total *Disagreement* of *Genus* and *Species* both; as *Sound* and *Silence*, *Light* and *Darkness*, *Day* and *Night*, &c. are call'd *Opposites*. *Contrariety* is the Relation of the *Extremes* with respect to a *Mean*, toward which they approach in Quality as in Distance; and wherein they ultimately unite; as *Heat* and *Cold*, *Virtue* and *Vice*, *Summer* and *Winter*, *Morning* and *Night*, are call'd *Contrarieties*. *Contradiction* consists in such a *Repugnancy* of the Nature of *Ideas*, as entirely destroys all Possibility of Union or Consistency between them; as *Power* and *Impotency*, *something* and *nothing*, *seeing* and *not seeing*, &c. are said to be *Contradictories*, and can't exist together. As for the common Division of *Identity* or *Sameness* into *General*, *Special*, *Numerical* or *Individual*, *Material* and *Formal*, the Words themselves sufficiently indicate what is meant thereby.

Corruptibility

Corruptibility is such an Affection of Being, as renders it capable of such a *Dissolution of the Parts*, by some Cause or Agency foreign to its Nature, which destroys the proper *Nature, State, and Texture* thereof, and causes it to cease to be *formally* the same Being as it was before. Thus the Bodies of Men, being dead, suffer *Corruption* by being converted into Dust; thus *Wood* by Fire is turn'd into *Ashes*, *Iron* into *Rust*, and *Copper* to *Verdigrease* by the Principle of *Corruption*. This is an *Attribute* of all *Corporeal Substances*; but spiritual Beings may, for ought we know, admit of no such *Change* or *Dissolution* of Parts, but always continue as well *formally* as *materially* the same; and may be therefore said to be *incorruptible*; at least, we must allow this Attribute of *Incarnability* to God, who possesses all Perfections.

Dependency of *Existence* is that Affection, whereby no Being can of itself have a Power to be, to endure, or to act, but must receive the same from some other thing, as its Cause productive of it. Thus all things depend primarily on God, and *secondarily* on one another. No *Animal* can produce itself, but depends on its Parent, as the pre-existent efficient Cause. The Doctrine of *Equivocal Generation*, or *Spontaneous Production* of Things, i. e. fortuitously, and without a Cause in its own Kind, is utterly false, an idle Conceit of ignorant Philosophers, and the bold Assertion of an impious Atheist. Consequently, *Independency*, or *Being* without any pre-existent Cause, can belong only to a *necessary* and *self-existing* Being, i. e. to God.

Simplicity and *Composition* are the next Affections of Being. *Simplicity* is defined to be the *indivisible* Unity of Being, or where all the *Ideas* of its Nature are of one and the same *essential* Nature and Kind; as the Particles of *Water, Fire, Air, &c.* purely such; and these constitute a most pure and simple *Body*, which we usually call an *Element*. On the contrary, *Composition* is that Affection of Being, by which it consists of various *Ideas* of divers *Natures*; and is said to be *Essential* or *Accidental*. *Essential Composition* is that whereby several Beings are compounded into one *Essence*: As *Salt-water*, a *Loaf of Bread*, &c. *Accidental Composition* is that where some *Accident* is an

Ingredient in the Idea ; as the Idea of the *shining Sun*, a *just Man*, &c. The Question is whether there be any *absolute Simplicity* in *Corporeal Beings*, unless in their *primary constituent Particles* ; but of these Affections I have already taken notice in *Logic*.

Of Communi-
cability, and
Incommunica-
bility.

Communicability is that Affection, whereby Beings are capable of participating of each other's common Nature ; as *Heat* is communicable to *Metals*, and other Bodies ; thus one Man communicates Knowledge to another ; and the Eyes have a *Communication* of *Animal Spirits* from the Brain. *Plants* and *Animals* all communicate of one common Nature in each. There are many dry scholastic Distinctions and Divisions under this Head, to be met with in Authors, which those who think it worth while may peruse. I shall only just observe here, that *Incommunicability* can be attributed to scarcely any Thing but the *Infinity* of God's Perfections, and to mere Non-entity ; for that which a Person has not, he can't communicate to another.

Of Creation.

Creation is that Affection of Being, by which it receives its first *Mode of Existence*, or acquires that *Essence* and *Form* which constitute its *Nature*. Thus the World and all Things are said to be created by God originally : The Earth was created of a *Chaos*, or *Mass* of confused Matter ; Man was created out of the Dust of the Earth ; *Fish* and *Fowl* out of the Water. This is a Power peculiar to God, since no Being can produce itself, but by the ordinary Method

Generation.

of *Generation* ; which is only a natural Means for continuing, propagating, and multiplying Beings, already form'd and created, and which have a *real* and *formal* Existence (tho' invisibly small) in the *Seed* of both *Plants* and *Animals*, as late Discoveries have sufficiently made manifest. *Quere*, (1.) Whether the proper Sense of the Word *Creation*, is the *making Something out of mere Nothing* ; (2.) Whether that does not imply a most *notorious Contradiction* ? (3.) Whether there is the least Shadow of such a Notion in the *Mosaic Account of the Creation*, Gen. i. ? (4.) Whether *Annihilation*, or the reducing of a *Substance to mere Nothing*, be not equally absurd, and plainly contrary to *Mathematical Demonstration* ? (5.) Whether

Queries.

ther

ther Matter, in its own Nature, be not necessarily *eternal* and *uncreate*?

Finite and *Infinite* are those *Ideas* which relate to the *Limits* and *Bounds* of *Existence*; and those Beings whose Nature, Parts, Quantity, Qualities, Powers, Operations, and Durations, are *limited* or *circumscribed* within certain Bounds and Terms, are call'd *finite Beings*: But those are *infinite*, which are *unlimited*, or have no *Bounds*. All *Substances*, and most of their Qualities, are *finite*; some can't be properly call'd *finite* or *infinite*; as *Colour*, *Truth*, *Falseness*, &c. Some Things are *infinite* with respect to their Duration, and therefore are call'd *Eviternal*, *Eternal*, or *Sempiternal*, as they are without *Beginning*, without *End*, or without *both*; as is the *Deity*, whose Existence is absolutely *Simultaneous* with regard to the Parts of Time. Some Things are *infinite* in Quantity, and then are said to be *Immense*; as the *Mundane Space*: Yet this may be justly question'd, for as *Space* is mere *Nibility*, and the *Limit* of *Existence*; so *Existence* may be said to be the *Limit* of *Nibility*. Among the abstracted Speculations of *Mathematicians*, we find various Kinds and Degrees of *Infinity*, both with regard to *Number* and *Magnitude*. The *Arithmetic* of *Infinities* is known to every *Tyro*; the *Analogy* or *Habitude* of *Infinities*, from *small* to *great*, is known and determin'd as intelligibly by them, as the *Ratio* or *Proportion* of any *finite* Quantities is by People in common. There is no *Medium* between *Finite* and *Infinite*; for what we call *Indefinite*, is only that of which we know not the Limits containing it.

Of Finite and Infinite.

Eviternity,
Eternity,
Sempiternity.

Immensify.

Mathematical
Infinities.

Indefinite.

THE *Principles* of Things are those primary and original Springs and Sources from whence they receive their *Existence*; as *Grapes*, *Apples*, and *Pears*, are the Principles of *Wine*, *Cyder*, and *Perry*. Thus *Minerals*, *Metals*, and *Herbs*, are the Principles of *Salts*, *Oils*, and many other Chymical and Galenical Medicines. Thus also the *Maxims*, *Axioms*, and *Rules* of Arts and Sciences, are the Principles of *Knowledge* and *Wisdom*; and *Virtue*, *Interest*, &c. are said to be the Principles of many *human Actions*. I can't think the Parts or Ingredients in the Composition of Bodies, are with any Propriety call'd *Principles*;

Of the Principles of Things.

Of Causes and Effects.

Primary Causes.

Secondary.

Universal.

Particular.

Univocal.

Equivocal.

Solitary.

Social.

Emanative.

Efficient.

Instrumental.

Necessary.

Contingent.

Accidental.

Material.

Formal.

Of Natural.

ciples; they are the *Essentials* of Existence, and not the *Sources* thereof. A *Cause* is any Power or Influence productive of Existence; and an *Effect* is the Product, or Existence resulting from the *Energy* of the *Cause*. From hence, 'tis plain, no Being but God can exist without a Cause: He is the *primary Cause* of all *formal Existence* at least; and all other Causes act in Consequence of the *divine Energy* operating in the *settled Laws* and *Course* of *Nature*, and are therefore call'd *secondary Causes*. Again, Causes are *Universal*, as the *Sun*, *Earth*, and *Rain*, of *Plants*, *Herbs*, and *Flowers*; or *particular*, as the *Seeds* of *particular* *Plants*. Causes are call'd *Univocal*, when they produce *Effects* of their own *Nature*, as when a *Lion* produces a young *Lion*; or *Equivocal*, when the *Effect* is of a different *Nature*, as when a *Man* writes a *Book*. Again, Causes are *Solitary*, as when a *Pestilence* destroys a *City*; or *Social*, as when an *Army* of *Officers* and *Soldiers* conquer it. An *emanative Cause* is when the *Effect* flows without any *Action* to produce it, as *Heat* or *Light* from *Fire*. An *efficient Cause* is that from whose proper *Action* the *Effect* directly results; as when a *Man* bends a *Bow*, or the *Bow* gives flight to the *Arrow*, or the *Arrow* strikes the *Mark*. An *instrumental Cause* respects the *Means*, as the *Knife* in making a *Pen*. *Necessary Causes* are such as ever act from a *Necessity* of the *Nature* of *Things*; thus *intercepted Light* must produce *Shadow* or *Darkness*; *Fire* must necessarily *burn*, &c. A *contingent Cause* is that which *casually* acts, as a *Tile* falling on a *Man's* *Head*. A Cause is *accidental* when *undesign'd*, as the *Breaking* a *Window* by throwing a *Stone* at a *Bird*. A *material Cause* is the *Substance*, as a *Gold* or *Brass* *Ring*. A *formal Cause* is the *Form*, as the *Roundness* and *circular Space* of a *Ring*. Besides these there are a great *Number* of other *Kinds* and *Divisions* of *Causes*, of too little *Moment* to be here insisted on.

THAT is said to be *Natural* which is made or done according to, or results immediately from the settled *Laws*, and establish'd *Order* and *Course* of *Nature*, which God first founded in the general *Disposition* of the *Universe*, and the *Constitution* of *Things*. Thus the *Gravitation* of *Bodies*, the *Vegetation* of *Plants*,
the

the Pulsation of Arteries, the Generation of Animals, &c. are said to be *natural Things*. That is said to be *Moral*, which proceeds from or pertains to *Manners, Conduct, and Government* of reasonable and intelligent Beings, endow'd with *Freedom of Will*, and under Obligations to particular Actions of Duty. Thus *Law, Virtue, Vice, Sin, Pardons, Rewards, Penalties, &c.* are of a *moral Nature*. That is *Artificial* which results from the *Art, Skill, or Contrivance* of Men ; as, Arms, Statues, Pictures, Houses, Books, &c.

Moral.

Artificial.

Permanency is that State of *Being*, wherein the *Existence* is constant, uninterrupted, and without Change ; as the *Position* of the *Sun* and *Stars* in the Firmament, the Colour of the Sky, the Body of the Atmosphere, the Rocks and Mountains of the Earth, &c. which are said to be *permanent Things* ; tho' strictly speaking, there can be no *absolute*, but only *comparative Permanency* in any *corruptible* Beings.

Of Permanency.

Succession is that State of *Being*, which respects the Parts of Time, in which Things of a *cognate Nature*, or of the same *Kind, Order, or Line*, have their Existence, with regard to each other, so as they may be said to be *before* or *after* one another. This is either *immediate* or without Intervention of any other ; as *King George II.* is the immediate Successor of *King George I.* Or it is *remote*, as the present King is a *remote Successor* to *William the Conqueror*. Again, with respect to the *Manner of Succession* it is either *direct*, as of *Persons* in a Stock or Family ; or *alternate*, as of *Day* and *Night* ; or *interchangeable*, as of the *Strokes* in the Changes on Bells. Also it is said to be *constant*, when there is no *Vacancy* of *Subjects* in any Part of the Line ; and when there is, the Succession is said to be broken or interrupted.

Of Succession.

Immediate or Remote.

Direct, Alternate, or Interchangeable.

Constant and Interrupted.

Absolute and *Relative* Affections of *Being* are thus distinguish'd : A Thing is said to be *absolute* when it is consider'd as subsisting by itself, exclusive of all other Ideas of Existence whatsoever, or so as if no other Being was any more concern'd in the Speculation thereof, than if it did not really exist. But *relative* Affection, or *Relation* of *Being*, is the Respect or Habitude, which two or more Things have to one another, in regard of some common Property or Affinity of their Natures. Thus *Paternity* and *Sonship*,
Greatness

Of Absolute and Relative.

Relation.

Relate and

Correlate.

Relations.

Natural.

Moral.

Reciprocal.

Non-reciprocal

Real.

Mental.

*Of Subject
and Adjunct.*

Of Objects.

Immediate.

Mediate.

Remote.

Common.

Proper.

Material.

Formal.

Of Number.

Greatness and *Smallness*, are *relative Ideas*; so *Father* and *Son*, a *Part* and a *Whole*, the *Beginning*, *Middle*, and *End*, are *relative Terms*. In *Relations*, the *Subject* thereof, or *Thing* spoken of, is call'd the *Relate*; and the other *Term*, to which the *Subject* relates, is call'd the *Correlate*. Thus if we speak of a *Father*, he is the *Subject* or *Relate*, and the *Son* is the *Correlate*; but if we speak of a *Son*, the *Son* is the *Relate* or *Subject*, and the *Father* is the *Term* or *Correlate*. *Relations* are (1.) *Natural*; as *Root* and *Branch*, *Father* and *Children*, &c. (2.) *Moral*; which respects a *Law*, or *Rule* of *Action*, as *Good* and *Evil*, *Rewards* and *Penalties*, &c. (3.) *Reciprocal*, or *Synonymous*; as *Cousins*, *Neighbours*, *Partners*, *Ballances*, &c. (4.) *Non-reciprocal*; as *Cause* and *Effect*, *King* and *Subjects*, &c. (5.) *Real*; in *Things* which do *really* exist, as *Master* and *Scholar*. (6.) *Mental*; which are made only by the *Mind*; as *Genus* and *Species*, the *abstract Ideas*, and *mental Signatures* of *Things*, as *Words*, *Terms of Art*, &c.

Subject and *Adjunct* are next to be consider'd; the *Subject* is the *Substance* of any *Existence* with all the *Essentials* thereof; the *Adjuncts* are some *accidental Modes*, not necessary to the *Existence* of the *Subject*; but are only certain *Appendices* or *Circumstances* thereof; as *Time*, *Place*, *Light*, *Cloathing*, *Situation* of other *Things* or *Persons*, and the *Concomitant*, *Antecedent*, or *Consequent Events*. When we consider *Things* as the *Subjects* of *Occupation*, *Operation*, *Science*, *Thought*, *Sense*, &c. they are then call'd *Objects*; and are of several *Sorts*, viz. (1.) *Immediate*; as the *Words* and *Pages* of a *Book* are of a *Student's Occupation*. (2.) *Mediate*; as his *Library of Books*. (3.) *Remote*; as *Notions*, *Arts* and *Sciences*, which are taught by those *Books*. Again, they are (4.) *Common*; as the *Size*, *Figure* and *Motion* of *Bodies* are *common* to the two different *Senses* of *Sight* and *Feeling*: Or, (5.) *Proper*; as *Colours* are to the *Sight* only. Lastly, *Objects* are (6.) *Material*; as the *Body* of a *Man* is of *Anatomy*, *Physic* and *Surgery*; or, (7.) *Formal*; as *Dissecting*, *Curing* or *Healing* of the *Body*, constitute the *formal Objects* of those three *Arts*.

Number is that *Affection* of *Being*, wherein many *single*, *distinct*, and *separate Substances* are considered

as existing together, and making *one Idea* in the Mind; as such and such a Quotient of *Men, Trees, Houses, &c.* When several Numbers are *added, multiplied, or divided*, the Result is call'd the *Sum, Product, and Quotient*, respectively. Number is said to be *discrete Quantity* as *Magnitude* is call'd *continued Quantity*. Number is *finite, indefinite, or infinite*, as well as *Magnitude*. See *Unity, &c.*

Order is that Affection of Being, wherein one Thing is consider'd as existing before, together with, or after another Thing, and therefore may be said to be *prior, simultaneous, or posterior* to it. *Order* is six-fold, viz. (1.) Of *Nature*; thus the *Father* is before the *Son*. (2.) Of *Time*; thus *Spring* is before the *Summer*, and *Autumn* after it. (3.) Of *Place*; as the *Horse* is before the *Cart*. (4.) Of *Dignity*; as the *King* is before a *Duke*. (5.) Of *Science*; thus a *Line* must be known before an *Angle*. (6.) Of *Number*; as the *Fourth* is next in order before the *Fifth*, and after the *Third*.

Time, as consider'd by *Ontologists*, is that Part of *Duration*, which terminates the *Interval* of the Existence of Things; or, if consider'd *physically*, is what we call *successive Duration*; and is divided into the *Past, the Present, and the Future*, as is well known. See more of this under *Philosophy*; and concerning the *Measures, and Civil Divisions* of it, under the Title of *Chronology*.

Ubiety is a Term used with respect to *spiritual Beings*, as *Locality* is with regard to *corporeal ones*, and is the very same Thing, viz. that Part of Space which circumscribes the Existence of Things at any given Moment of Time, and is commonly call'd their *Place*. See *Space* farther explain'd under *Philosophy*. *Place* is the Situation of Bodies, and is two-fold, viz. (1.) *Absolute*, which is that Part of Space any Being fills up or possesses, consider'd simply in itself. (2.) *Relative*, which is that Situation any Being has with respect to other quiescent Bodies around it.

Unity is that Affection whereby any Thing subsists singly and alone in our Minds, from all others of a like Kind; and it is either *simple* or *compound* as to the Substance existing; as *one Flower*, or *one Nosegay*. *Union* is that whereby two or more Things become

one, or are so consider'd ; as *Metals*, in *Fusion*, run together, and make one Substance ; thus States unite under one Government. *Unity* and *Multiplicity*, *Singularity* and *Plurality*, are Opposites, and nearly of the same Signification in the like Terms of each.

Of Verity or Truth.

Verity or *Truth* is divided by *Ontologists* into, (1.) *Metaphysical Truth*, which consists in a perfect Conformity of a Being to the *divine Intellect* or *Idea*, which is the *grand Pattern* of all created Beings. (2.) *Physical* or *Natural Truth* ; which is when a Thing has all the Essentials requisite to its Nature, as *pure Gold* is said to be *true Gold*. (3.) *Logical Truth* ; as when *Words* are conformable to their *Ideas*, or *Propositions* to the *Things intended*. (4.) *Ethical* or *Moral Truth* ; as when our *Words* or *Actions* agree with our *Thoughts*, and our *Deeds* to our *Words* ; the first is call'd *Sincerity*, the latter *Veracity*.

Of Goodness or Bonity.

Goodness or *Bonity* is defined to be the *Convenience* or *Agreement* of Things with the *Law* and *Standard* of their Nature, so that they possess all Qualities necessary to answer the Design thereof. This is also

Metaphysical.

(1.) *Metaphysical* ; as when Things are agreeable to the *Will of God*, and answer his *Designs*. So he survey'd his Works, and behold they were *very good*.

Natural.

(2.) *Physical* or *Natural* ; when they are capable well to answer their *natural End* ; as *Corn*, when fit for *Seed* or *Food* ; so *Air*, when fine, pure, and fit for *Breathing*. (3.) *Artificial*, as things are made or done near or agreeable to the *Standard of Perfection* ;

Artificial.

Moral.

as *good Writing*, a *good Picture*, *Clock*, &c. (4.) *Moral*, which when it relates to *Man* is called *Virtue*, or *Religion* when it has a *Regard to God*. When *Truth* and *Goodness* both unite in Things, it is called *Perfection* ; when either are wanting in any Degree, the Being is *imperfect*.

Perfection what.

Of Signs, &c.

Signs, *Representations* and *Denominations* of Things are reckon'd among the *Mental* relative Affections of Being ; but how justly I am not here to examine. *Signs* are the Resemblances of some outward real Beings, which are thereby represented to our Minds. *Signs* are of various Kinds, as (1.) *Natural*, as a *Beard* is of *Manhood*. (2.) *Divine* ; which is by God's Appointment, as the *Eucharist* of the *Death* of *Christ*. (3.) *Human*, or appointed by Men ; as *Livery* to de-

Natural.

Divine.

Human.

note

note great Men's Servants. (4.) *Pigneratitious*, or *Pigneratitious* mere *Tokens* or *Pledges*, which do not represent the Thing in itself; as the *Rainbow* is a *Token* which is only to shew and assure us, that the *World* will not any more be drowned. (5.) *Antecedent*, as *profuse Management* is of approaching *Poverty*. (6.) *Concomitant*, as *Shivering* is of an *Ague* present. (7.) *Consequent*, as a *Funeral* is of *Death*. (8.) *Memorial*, as a *funeral Ring* is of a *Person* deceased. (9.) *Commonstrative*, as a *Tomb* of a *Person* buried there. (10.) *Neccessary* and *certain*, as the *Morning Star* is of the *rising Sun*. (11.) *Contingent* and *probable*, as *Prudence* and *Industry* are probable *Signs* of a *Man's* thriving in the *World*. (12.) *Prognostic*, *Diagnostic*, &c. *Signs* have been already explain'd in *Physic*. Besides these, there are various *Symbolical Signs* and *Representations* of *Things* invented and used by *Artists*; as the *Characters* of *Algebra*, *Music*, and other *Arts* and *Professions*.

THIS *Compendium* of *Ontology*, 'tis hoped, will be sufficient to shew that this is not a dry and unnecessary Science, as it is too much reputed: but, on the contrary, that it is an excellent and useful one; as it supplies us with just *Notions* and true *Distinctions* and *Differences* of *Things*, in regard of which it merits the first *Place* in the *Order* of *Sciences*, and ought to be well digested in the *Minds* of all such as would excel in critical and polite *Literature*.

Antecedent.
Concomitant.
Consequent.
Memorial.
Commonstrative.
Neccessary.
Contingent.
Prognostic, &c.

Ontology recommended.





Of the ART of POETRY.

Poetry defin'd.

A Poet, who.

A Poetaster.



POETRY or POESY is the Art, or rather the Faculty of *making Verses*. And a *Poet* is he who hath this *Art, Faculty or Skill* in its *genuine Perfection*. All others who *write Verses* are term'd *Ver-sifiers, Poetasters, or Paultry Rhymers*; all which are *Terms of Reproach*, and imply, that he who does not write *good Verses*, must necessarily write *bad ones*; and that is a *Disgrace*. Accordingly *Boileau* advises,

Rather be *Mason*, ('tis an useful Art)
Than a *dull Poet*: For that Trade accurst
Admits no *Mean* betwixt the *best* and *worst*.
In *other Sciences*, without *Disgrace*
A *Candidate* may fill a *second Place*:
But *Poetry* no *Medium* can admit,
No *Reader* suffers an *indiff'rent Wit*.

Verses defin'd.

Metre, what.

Rhyme, what.

Verses, especially *English Verses*, is compos'd of *Metre* and *Rhyme*. *Metre* is when every *Line* is confin'd to a certain *Number of Syllables*, (as *ten, eight, or seven*, commonly) and the *Words* so plac'd that the *Accents* may naturally fall on such *peculiar Syllables* as make a *Sort of Harmony* to the *Ear*. And *Rhyme* is the *Similitude or Likeness of Sound* in the last *Syllables*, (or those next the last) of every two or every other *Line*. As thus,

The Power that ministers to God's Decrees,
And executes on Earth what he foresees,
Call'd *Providence*, or *Chance*, or *fatal Sway*,
Comes with resistless Force, or finds or makes her
Way.

IN these *Lines* the two last *Syllables* in *Order* of every two *Lines* found alike, and therefore are said to
rhyme.

rhyme together ; but in the following the *penultimate Syllables*, or those next the last, rhyme to each other, and this is call'd *double Rhyme*. As,

Double Rhyme.

Then all for Women, Painting, Rhyming, Drink-
ing,
Besides ten thousand Freaks which died in Think-
ing.
Or thus ;
When Pulpit, Drum Ecclesiastick,
Was beat with Fist instead of a Stick.

THERE are some Verses found to have *treble Treble Rhyme*,
Rhyme, or wherein the *Antepenult*, or *third Syllables*
from the last in every two Lines do *rhyme* ; but as
this is not worthy *Practice*, so it is not worthy
Mention.

Some Verses rhyme to each other *alternately* ; As,

Howe'er 'tis well that while Mankind
Through Fate's fantastick Mazes errs,
They can imagin'd Pleasures find,
To combat against real Cares.
Fancies and Notions we pursue
Which ne'er had Being but in Thought,
And, like the doating Artist, wooe
The Image we ourselves have wrought.

A *Stanza*, or *Staff* of Verses, is an entire Strain, *A Stanza of*
or *compleat Period in Verse* : As, a Stanza of three *Verses*, *what*.
Lines.

Nothing, thou elder Brother ev'n to Shade !
Thou had'st a Being ere the World was made,
And (well-fix'd) art alone of ending not afraid.

}

A *Stanza* of four Verses.

She ne'er saw Courts, but Courts could have undone
With untaught Looks, and an unpractis'd Heart ;
Her Nets the most-prepar'd could never shun,
For Nature spread them in the Scorn of *Art*.

In Number of Verses.

THE Sense should always be finish'd in the *Stanza* ; a *Stanza* in *English Poetry* cannot consist of less than three, and has seldom more than twelve Verses, except in *Pindarick Odes*, where the *Stanzas* vary very much.

An Ode or Song, what.

AN Ode or Song is a certain Number of *Stanzas* more or less, and is proper to the *Lyric Poetry*, or that which was made and set to the *Lyre* or *Harp*.

A Poem de-fin'd.

A Poem is a compleat and finish'd Piece of *Poetry*, or any *Composition in Verse*.

Blank Verse or Poetry.

Blank Poetry or Verse is that which has no *Rhyme*, but only *Metre*, *Harmony* of Syllables, and a delightful *Cadence* of the Accents. As thus in *Milton* :

———— I saw the rising Birth
Of Nature from the unapparent Deep.
I saw when at his Word this formless Mass,
The World's material Mould, came to an Heap ;
Confusion heard his Voice, and wild Uproar
Stood rul'd, stood vast Infinity confin'd ;
Till at his second Bidding, Darkness fled,
Light shone, and Order from Disorder sprung.

Of Poetical Numbers, Feet and Place. Long and short Syllables.

Poetical Numbers, and *Feet* and *Place*, may be understood as follows : In *Poetry* (especially in the *Latin*, *Greek*, &c.) *Syllables* are distinguished, according to *Quantity*, into *Long* and *Short* : The *long Syllable* hath this Mark —, the *short* one this ∪ ; and a certain Number of these *long* and *short Syllables* make a *Foot*, or the *Poetical Feet* of a *Verse*. The *Place* or *Region* of a *Foot* in a *Verse* is its *Situation* in regard of the Beginning ; as the *Second*, *Fourth*, *Sixth*, are call'd *even Places* ; the *First*, *Third*, *Fifth*, are call'd *odd* or *unequal Places*.

Poetic Feet, and their Kinds.

OF Feet some be of *two Syllables*, some of *three*, as here follow.

A Foot of two Syllables is fourfold.

A Foot of three Syllables.

{	<i>A Spondee</i> ,	two Long,	- -	
	<i>Pyrrhic</i> ,	two Short,	∪ ∪	
	<i>Trochee</i> ,	one Long and one Short,	- ∪	Water
	<i>Iambic</i> ,	one Short and one Long,	∪ -	Delight
{	<i>A Molese</i> ,	three Long,	- - -	
	<i>Tribrach</i> ,	three Short,	∪ ∪ ∪	
	<i>Dactyl</i> ,	one Long and two Short,	- ∪ ∪	Pöetry.
	<i>Anapest</i> ,	two Short and one Long,	∪ ∪ -	Dominëer,

WE have no *English* single Words which have the Quantity of the *Spondee*, *Pyrrhic*, *Moloss*, and *Tribrach*; and accordingly I have left their Places vacant. And indeed in *English Poetry*, there is very *small Variety* of Feet, the *Iambic* being as it were sole Regent of our *Verse*; according to Mr. *Brightland*:

If Pulse of Verse a Nation's Temper shows,
In keen *Iambics* English Metre flows.

BUT as some *Variety* is necessary to please, our *Poets*, maugre the *Genius* of their *Tongue*, do very gracefully admit sometimes a *Trochee*, sometimes a *Dactyl*, &c. into their *Compositions*. As the same Author proceeds:

Two Syllables our *English Feet* compose,
But Quantities distinguish them from *Prose*:
By *long* and *short* in various Stations plac'd
Our *English Verse* harmoniously is grac'd.
With *short* and *long* Heroic Feet we raise,
But these to vary is the Poet's Praise;
For the same Sounds perpetually disgust:
Dryden to this Variety was just.

IF a *Verse* consists of *six Places* or *Feet*, 'tis call'd *The Kinds of an Hexameter Verse*; of this Sort were all the *Compositions of Latin and Greek Heroic Poetry*, as the *Æneiad* and *Iliad*. But if the *Verse* has but *five Feet*, 'tis call'd *Pentameter*. If a *Verse* abounds mostly with *Iambics*, 'tis call'd *Iambic Verse*; and thus it is named in respect of the other Feet.

OF the several *Kinds of Feet* above set down, the *Spondee* and the *Dactyl* are the most considerable, as being the Measures used in the *Heroic Verse* by *Homer*, and *Qualities Virgil*, &c. These two Feet are of *equal Time* (for *two short Syllables* are equal to *one long one*) but of *different Motion*. The *Spondee* has an *even, strong, and steady Pace*, which may be compar'd to a *Trott*: But the Motion of the *Dactyl* is *brisk*, and resembles the nimbler Strokes of a *Gallop*. An inverted *Dactyl* is an *Anapest*, a very sprightly *Trott*, and a Motion proper to excite and enrage. The *Iambic* is also of a light and sprightly Nature. The *Trochee* is of a contrary

trary one, fit to express weak and languid Motions ; as all those Measures which move from *long* to *short* Syllables. The *Pyrrhic* and *Tribrach* are very rapid, as the *Moloss* is *slow* and *heavy*. The Verse is generally so order'd by the *skilful Poet*, that it in some measure expresses the very *Nature* and *Modes* of the Subject, by the *Number* and *Sound* of the *Feet* and *Syllables*. This *Mr. Pope* gives an elegant Instance of, when, to shew how *heavy* and *dull* the *French Monosyllable Poetry* is, he saith,

And ten low Words oft creep in one dull Line.

Which Line is an Instance of what he reproves ; for there are indeed *ten Monosyllable* Words, which seem to *creep* heavily through the Line, and make it *dull* and *flat*.

Of the Kinds
of Poetry.

THERE are various Kinds of Poetry constantly in Use ; the Subject, peculiar Characters, and a Poetical Description of the most considerable Sorts, I shall give the Reader from *Mr. Brightland, Boileau, &c.* And first

OF BUCOLICS, or PASTORAL.

Of Bucolic, or
Pastoral ; and
Georgics.

THIS sort of Poetry is call'd *Pastoral*, because it is an Imitation of a *Shepherd's* Life, or that of *Rural Nymphs* and *Swains*. It is also call'd *Bucolics* from the *Cow-herds*, &c. which were the Subject of their Employment : As *Georgics* are Poems so call'd from *Husbandry* and *Agriculture*, the Subjects about which they are employ'd.

The *Pastoral* that sings of happy *Swains*,
And harmless *Nymphs* that haunt the Woods and
[Plains,

Should through the whole discover ev'ry where
Their true *Simplicity* and *pious Air* ;
And in the Characters of *Maid*s and *Youth*,
Unpractis'd *Plainness*, *Innocence* and *Truth*.

As a fair *Nymph*, when rising from her Bed,
With sparkling *Diamonds* dresses not her Head ;

But,

But, without *Gold*, or *Pearl*, or *costly Scents*,
Gathers from neighb'ring Fields her Ornaments :
Such, *lovely* in its Dress, but *plain* withal,
Ought to appear a perfect *Pastoral*.

Its Style must still be *natural* and *clear*,
And *Elegance* in every Part appear ;
Its *humble Method* nothing has of *Fierce*,
But hates the *Rattling* of a *lofty Verse*.
There *native Beauty* pleases and excites,
And never with *harsh Sounds* the Ear affrights.

Oppos'd to this another, *low* in Style,
Makes *Shepherds* speak a Language *base* and *vile* ;
His Writings *flat* and *heavy*, without Sound,
Kissing the *Earth*, and *creeping* on the *Ground*.

Each *Pastoral* a little *Plot* must own,
Which as it must be *simple*, must be *one* :
With *small Digressions* yet it will dispense,
Nor needs it always *Allegoric Sense*.

The *Pastoral* admits of *Vows* and *Praise*,
Of *Promises*, *Complaints*, of *Mirth* and *Joys*,
Congratulations, *Singing*, *Riddles*, *Jests*,
Of *Parables*, *Sentences*, and the rest.

In *Pastorals* to know what *Rules* are *right*,
For Guides take *Virgil*, and read *Theocrite* ;
Be their *just Writings*, by the Gods *inspir'd*,
Your *constant Pattern*, practis'd, and admir'd.
By them *alone* you'll easily comprehend
How Poets, without Shame, may condescend
To sing of *Gardens*, *Fields*, of *Flowers* and *Fruit*,
To stir up *Shepherds*, and to *tune* the *Flute* :—
This of their Writings is the *Grace* and *Flight*,
Their *Risings* *lofty*, yet not out of *Sight*.

OF ELEGY.

AN *Elegy* is a *mournful Poem*, a *funeral Song* or *Of Elegy, and*
Ditty ; first invented to bewail the *Death* of a *Friend*, *its Properties.*
the *Coyneſs* or *Cruelty* of a *Mistress* ; and to expreſs
all other *plaintive*, *mournful* and *melancholy* Subjects
and Themes. In *Elegy* the *Paſſions* of *Grief*, *De-*
ſpair, *Reſentment*, &c. ought to predominate. The
Strains ſhould abound with frequent *Commiferations*,
Complaints, *Exclamations*, and ſhort and proper
Digreſſions.

Digressions. The Measure should be *Heroic Verse*, as the most *solemn*. The *Sentiments* and *Numbers* should be *soft* and *sweet*; the *Diction*, *neat*, *clean*, *soft*, *ingenuous* and *open*, *plain*, *modest*, *tender*, full of the *Affections* and the *Pathetic*. Or thus;

The *Elegy* demands a *solemn Style*,
It mourns with flowing Hair at fun'ral Pile,
It paints the Lover's Torments and Delights,
A Mistress flatters, threatens, or invites.
But well those Raptures if you'd let us see,
You must know *Love* as well as *Poetry*.

The *Model* of this Poem should be made,
And every Part of all its Structure laid,
And all directed to some certain End,
And Verse on Verse perpetually depend,
And all concerted e'er one Line be pen'd.

No glitt'ring *Points*, nor any nice *Conceit*,
Should load the *Elegy* with *foreign Weight*;
Passion and *Nature* here avow their *Right*,
And with *Disdain* throw back that mean *Delight*.

Remember that the *Diction* ev'ry where
Be *gentle*, *clean*, *perspicuous* and *clear*,
Correct; the *Manners* all along express,
In ev'ry Place the *Passions* still confess.

No cutting off the *Vowels* must be found,
For that destroys its *smooth* and *flowing Sound*.

MOREOVER *Apostrophes*, or *Addresses* to Things or Persons; *Prosopopæia*'s, or feigned Persons; *Allusions* to Sayings; Examples from the *Like* and *Unlike*, and *Contraries*; sometimes *Comparisons*, and above all, some *Signification* of *Antiquity*, beautify and adorn this Poem.

THE LYRIC.

Of the Lyric.

THIS is discern'd and distinguish'd from all other Parts of Poetry by a peculiar *Suavity* or *Sweetness*, which is its *Characteristic*. In this Sort of Poetry (says the Jesuit *Pontan*) the Poet applies himself entirely to sooth the Minds of Men by *Sweetness*, and the *Variety* of the Verses, and the *exquisite Elegance* of

of the *Diction*, in the *Beauty* and agreeable *Cadence* of the *Numbers*, and the *Description* of Things most *delightful* in their *Natures*.

THE *Subject*, or *Substance* rather, of *Lyric Poetry* is *Song* or *Ode*. The *Ode* originally had but one *Strophe* or *Stanza*; but was at last divided into three *Parts*, *Strophe*, *Antistrophe*, and *Epode*. For as the *Priests* went round the *Altars*, chanting the *Praises* of the *Gods* in *Verse*; so they call'd their first *Turning* to the *Left Strophe*, and their *Returning* on the *Right* they call'd *Antistrophe*; and the *Verses* sung they call'd *Ode* and *Antode*: At last, standing *before* the *Altar*, they sang the *rest*, which they call'd the *Epode*. The *Greeks* call'd those *Odes*, which were set to *Instruments*, as the *Lyre*, *Psaltery*, &c. *Psalms*; and the *Singing* them, *Psalmody*; but those *Songs* or *Odes* wherein they sang the *Praises* of their *Gods*, they call'd *Hymns*, and the *Chanting* them, *Hymnody*.

Lyric Poetry
consists in *Ode*
or *Song*.
The *Parts* of
an *Ode*
Strophe, *Anti-*
strophe, and
Epode.

Psalms and
Psalmody.
Hymns and
Hymnody.

Sweetness is most peculiar to the *Ode*,
Ev'n when it rises to the *Praise* of *God*.
To *Heav'n* it mounts in its ambitious *Flight*,
And 'mongst the *Gods* and *Heroes* takes *Delight*.
Variety of *Numbers* still belong
To the sweet *Melody* of *Ode* or *Song*.
Th' *Expression* should be *easy*, *Fancy* high;
That should not seem to *creep*, nor *this* to *fly*:
No *Words* *transpos'd*, but in such *Order* all,
That tho' *hard wrought*, may seem by *Chance* to fall.
No *useless Line* in *Odes* can find a *Place*,
Nor a *repeated Word* appear with *Grace*.
But *obscene Words* for ever give *Offence*,
And in all *Poetry* debase the *Sense*.
The *generous Style* from *strictest Rules* of *Art*
With *Grace* and *brave Disorder* may depart.

The *Qualities*
of this *Poem*.

The PINDARIC ODE.

THIS Sort of *Ode* is call'd *Pindaric*, from the In- Of *Pindaric*
ventor *Pindar*, an antient *Grecian*, whom *Alexander Verse*.
esteem'd so much, that when he destroy'd the *City*
Thebes, he spared only *Pindar* and his *Family* of all
the *Inhabitants*. This Sort of *Ode* is employ'd in all
manner

OF POETRY.

manner of Subjects, *Pleasant, Grave, Amorous, Heroic, Philosophical, Moral, Divine.* Cowley was the first who introduced this Sort of Poetry into our Tongue; and his first *Stanza* of his *Ode on Liberty*, is both a good Description, and proper *Idea* of this Kind of *Ode*, which is as follows.

*An Example
of Cowley's.*

If Life should a well-order'd Poem be,
 In which he only hits the White
 Who joins true Profit with the best Delight;
 The more *heroic Strain* let others take,
 Mine the *Pindaric Way* I'll make:
 The *Matter* shall be *grave*, the *Numbers loose* and
 (free.
 It shall not keep *one settled Pace of Time*,
 In the same *Tune* it shall not always chime,
 Nor shall *each Day* just to his *Neighbour rhyme*.
 A thousand *Liberties* it shall *dispense*,
 And yet shall manage *all* without *Offence*,
 Or to the *Sweetness* of the *Sound*, or *Greatness* of the
 (Sense.)
 Nor shall it ever from *one Subject* start,
 Nor seek *Transitions* to depart;
 Nor its set *Way* o'er *Stiles* and *Bridges* make,
 Nor thro' the *Lanes* a *Compass* take,
 As if it fear'd some *Trespass* to commit,
 When the *wide Air's* a *Road* for it,
 So the *Imperial Eagle* does not stay
 'Till the whole *Carcase* he devour
 That's fall'n into his *Power*;
 As if his gen'rous *Hunger* understood
 That he can never want *Plenty of Food*,
 He only sucks the *tasteful Blood*,
 And to *fresh Game* flies chearfully away,
 To *Kites* and *meaner Birds* he leaves the *mangled*
 (Prey.

S A T Y R E.

Of Satyre.

Satyre is a *free, jocular, witty, and sharp Poem*, severely inveighing against *Vice*, and all *corrupt Manners* and *Persons*, and in short, whatever deserves our *Laughter* or *Abhorrence*. The *Matter* therefore of *Satyre* is *Turpitude*; its *Manner*, *Invective*; and its
 End,

Its Matter.

End, *Shame*. *Satyre* inveighs against and derides the *Slothful*, the *Parasite*, the *Loquacious*, the *Ingrateful*, the *Libidinous*, *Drunkards*, the *avaricious Usurers*, *Bravo's*, *Robbers*, *Adulterers*, &c. *Satyre* is the *Physician* of a *distemper'd Mind*, and endeavours the *Cure* by bitter and unsavory, yet salutary *Applications*; if the *Disorder* continues, it acts *chirurgically*, cuts, cauterizes, and spares not.

THAT *Satyre* be *just*, it ought to be *general* and *Qualities*. *true*; otherwise it degenerates into a *Libel*, or scurrilous *Lampoon*, and accountable to the *Law*. It ought to be *strong*, and to strike *powerfully*; and the *Style* and *Manner* must be *manly* and *smooth*.

Folly and *Vice* of ev'ry Sort and Kind,
That wound our *Reason*, or debase the *Mind*;
All that deserves our *Laughter* or our *Hate*,
To biting *Satyre's* Province do relate.

*Its Use, End,
&c.*

The *Slothful*, *Parasite*, affected *Fool*,
Th' *Ingrateful* and the pert *loquacious Tool*,
The *Lustful*, *Drunkard*, th' *avaricious Slave*,
The *noisy Bravo*, and the *tricking Knave*,
Satyre by wholesome *Lessons* would reclaim,
And heal their *Vices* to secure their *Fame*.
The *Latin Writers* decently neglect,
But *modern Readers* challenge our *Respect*;
And at *immodest Writings* take *Offence*,
If *clean Expressions* cover not the *Sense*.
Satyre should be from all *Obsceneness* free,
Not *impudent*, and yet preach *Modesty*.
Our *Freedom* in our *Poetry* we see,
That *Child* of *Joy*, begot by *Liberty*;
But, *vain Blasphemer*, tremble when you chuse
God for the *Subject* of your *impious Muse*:
At last, the *Jests* which *Libertines* invent
Bring the *lewd Authors* to just *Punishment*.
Tho' *Vice* and *Folly* be keen *Satyre's* Aim,
It should not on their *Natures* here declaim.
Good Satyre comes not but from Men of *Sense*,
Wit, and *Sagacity*, and *Eloquence*.
Of good *Address*, and such a *Poignancy*
As may consist with *Mirth* and *Pleasantry*.
A *Satyre* knows no *Parts*; but on our *Sins*
Abruptly falls, or *gradually* begins:

But

But this Abruptness must regard the *Whole*,
Which must its *Words*, and *Manners* too, controul.
Let *flowing Language* utter all you say,
And *smoothest Words* should *sharpest Thoughts* convey.

Of COMEDY.

Of Comedy,
and Dramatic
Poetry.
Drama, what.

COMEDY is one of the great Parts of *Dramatic Poetry*, or that which is *acted* on a *Stage*, in the *Manner* of a *Play*: A *Drama* being any *Poetry acted* by Persons on a *Stage*, and is call'd a *Play*. This is the most *useful*, *difficult*, as well as the most *delightful* Sort of *Poetry*; of which, as I said, *Comedy* is one great Part. *Comedy* is an agreeable *Imitation* or *Representation* of the *Actions*, *Humours*, and *Customs* of common Life. Its End is to deride *Vice* and *Folly*, and to recommend *Virtue*, not so much by *Description* as *personal Action*; that *Spectators* may see and be ashamed of the *Baseness* and *Deformity* of *Vice*, in the *Actions* and *Persons* of others, which they do not mind or regard in themselves.

The Parts of
Comedy, five.
Prologue.

Protasis.

Epitasis.

Catastasis.

Catastrophe.

COMEDY has five Parts, viz. (1.) The *Prologue*, which is a *Speech* made to the *Spectators* before the *Play* begins; wherein the *Poet* is commended, the *Objections* answer'd, the *Argument* of the *Play* declared, &c. (2.) *Protasis*; this is the first Part of the *Play*, in which the *Sum* of the *whole Matter* is related and proposed, but the End is not yet discover'd: This is contain'd in the *first*, and sometimes the *second Act* also. (3.) *Epitasis*, or *working up of the Plot*, wherein the *Play* grows warmer, the *Design*, or *Action*, or *Plot* draws on and thickens, and you see something promising. (4.) *Catastasis* is the full *Vigour* and *State* of the *Plot*, which is now brought to its greatest Height; but here your *Expectation* is destroy'd, and the *Action* embroil'd in new *Troubles*. (5.) *Catastrophe*, or the *Discovery* or *Unravelling* the *Plot*; here you see all Things settling again on their first *Foundation*, and terminate in an *unexpected happy Issue*. This employs the fifth, and sometimes both the fourth and fifth *Acts* of the *Play*, for there are never more nor less than five *Acts*.

THE

THE *Plot* or *Fable* is the *Subject Matter* of the *The Plot or Drama*, or *Play*: An *Act* is a Part of the *Fable*, *Fable of the* which contains *divers Actions* according to the *Diversity* of the *Parts*: And the *Scene* is a Part of an *Act*, *Drama*, wherein two or more *Persons* are discoursing and acting together. As to the *Persons*, *Manners*, *Sentiments*, *Diction*, &c. see the following Verses. *what.*

To four *essential* Things w'assign a Part,
In every *Comedy* that's writ with Art;
The *Fable*, *Manners*, *Sentiments* are these,
And *proper Diction* that must all express.
The *Fable* is the *Plot* that is design'd
To *imitate the Actions* of Mankind;
But without *Manners* these cannot be drawn,
In them the *Temper* and the *Humour's* shown,
As by the *Sentiments* these are made known. }
The *Diction* is the *Language* that does show
In *Words*, the *Sentiments* which from them flow.
Observe the *Characters* of those that speak,
Whether an *honest Servant*, or a *Cheat*,
Or one whose *Blood* boils in his youthful *Veins*,
Or a *grave Matron*, or a *busy Nurse*,
Extorting *Tradesmen*, careful *Husbandmen*:
Boys must not have th' ambitious *Cares* of *Men*,
Nor *Men* the weak *Anxieties* of *Age*.

The *Fable*,
Manners, *Sentiments* and
Diction.

Expose no *single Fop*, but lay the Load
More *equally*, and spread the *Folly broad*.
The other *Way* is *Vulgar*; oft we see
A *Fool* derided by as *great* as He:
Ill Poets thus will *one poor Fop* devour;
But to collect, like *Bees*, from ev'ry Flower
Ingredients to compose the precious Juice,
Which serves the World for *Pleasure* and for *Use*,
In spite of *Faction* will our *Favour* find,
And meet with the *Applause* of all Mankind.

None can with their *fix'd Characters* dispense;
Fools sin, if they pretend to *Wit* or *Sense*.
The *Merchant*, *Soldier*, *Student*, *Miser*, *Beau*,
In their *Demeanour*, *what they are*, must show.
That silly Thing, Men call *Sheer-Wit*, avoid,
With which our *Age* so nauseously is cloy'd.
Humour is all, *Wit* should be only brought
To turn agreeably some *proper Thought*.

OF

OF TRAGEDY.

Of Tragedy.

TRAGEDY is the most sublime and useful of all *Dramatic Poesy*: In this the *Calamities* of illustrious Persons are acted by *dramatic Persons*, to the

The End and Design thereof.

End that the *Minds* of the *Audience* may be affected with *Pity*, *Mercy*, *Terror*, &c. and be made aware of the *disastrous Occasions* of those *Tragical Events*, which are the *Substance* of the *Play*. In a *Tragedy* 'tis not absolutely necessary there should be *historical Truth*, but there must always be a *Probability*. There

The Unities of Action,

are three *Unities* in *Tragedy*: (1.) The *Unity of Action*; the *Action* must always be *one*, and not all the *Actions* of a Man's Life; this must be *entire*, and have a *Beginning*, *Middle*, and *End*; and the Whole of such a Nature, as is apt to excite *Pity*, *Terror*, and to refine the *Passions* in general. (2.) The *Unity of Time*; which *Critics* differ about notwithstanding; some allowing but four or five Hours, some ten, others fifteen, and *Dryden* twenty-four, for the Time of the

Time,

and Place.

Action. (3.) The *Unity of Place*; which requires but *one Scene* throughout the *Play*: though this is not observ'd in some of the most *successful Tragedies*.

The Parts of Tragedy.

A *Tragedy* compleat *four Parts* does claim:
Fable the first and principal we name;
The *Manners* and the *Sentiments* succeed,
And the last Place to *Diction* is decreed.

The Fable.

The *Fable* is of *Tragedy* the *End*,
To which the *grand Design* does wholly tend;
The Poet here employs his *Care* and *Art*
To move the *Passions*, and incline the *Heart*.
But if, in labour'd Acts, the *pleasing Rage*
Cannot by Turns our *Hopes* and *Fears* engage,
Nor in our Minds a *feeling Pity* raise,
In vain with learned Scenes he fills his Plays.

The Manners.

The *Manners* next, by the *Dramatic Laws*,
As they of *Action* are the Source and Cause,
Demand our *Study*, and our utmost *Care*;
By those the Persons their *Designs* declare,
And from each other best distinguish'd are.

The

The *Sentiments* obtain the next Degree,
Tho' least in Excellence of all the three.
The *Sentiments* the *Manners* do exprefs,
But ſuch as *Truth* and *Likelihood* poſſeſs.
A *Lie* or *Wonder* cannot entertain,
The Mind's *chagrin'd* if the Diſcourſe be vain.

The Sentiments

The *Diſtion* muſt the *Sentiments* unfold,
Which in their proper Language muſt be told.
As noble Thoughts muſt every where abound,
Be *eaſy*, *pleaſant*, *ſolid* and *profound*;
To them ſurprizing *Touches* you muſt join,
And ſhew us a *new Wonder* in each Line.

The Diſtion.

The *Unites* of *Action*, *Time*, and *Place*,
Keep the Stage full, and give the *Play* a *Grace*.
Thus all in a juſt Method well deſign'd,
Leaves ſtrong Impreſſions on the docile Mind.

The Unites.

Of the EPIC or HEROIC POEM.

AN *Heroic* or *Epic Poem* is a Diſcourſe invented with *Art*, to form the *Manners* by Inſtructions, diſguiſed under the *Allegory* of an *Action*, which is important, and related in *Verſe* in a *delightful*, *probable*, and *wonderful* Manner.

Of the Heroic or Epic Poem.

OR thus: It is the Imitation of one *Action*, illuſtrious, compleat, and of a certain *Magnitude* or *Duration*, which by a *Narration* in *Hexameter* (or *Heroic*) *Verſes* excites great *Men* to *primary* and *heroic Virtues* with *Admiration* and *Delight*. The *Epic* hath five *Parts*, the *Action*, *Fable*, *Manners*, *Sentiments* and *Diſtion*.

Its Parts.

THE *Action* ought to be, (1.) *One*; that is, per-form'd by one *Hero*, and in one continued *Space* of *Time* without Intermiſſion; and ſuch, moreover, as cannot be divided into other whole and compleat *Actions*. (2.) *Illuſtrious*; and therefore of great and principal *Men*, and *Heroes*; and in *ſplendid* and *weighty Matter*. (3.) *Compleat*, to which none of all the *Incidents* may be wanting, which are neceſſary to render it *absolute* and *perfect* to the End. (4.) Of a certain *Magnitude* or *Duration*, which is generally defined to be in the *Space* of a *Year* or *leſs*.

The Action.

Fable.

THE *Fable* is the *Form*, and artful Representation of the *Action*, which is the *Matter* of the *Poem*; the *Manners*, *Sentiments*, and *Diction* are the necessary Ornaments of the *Fable*. The *Fable* consists of some Parts plainly necessary; as, (1.) The *Exordium*, or *Beginning*; wherein the *Action* of the *Poem* is proposed, the Deity invoked, and sometimes the Work dedicated to some great *Man* or *Friend*. (2.) The *Connection*; which is a *Series* of various casual *Events* continued to that Part of the Work, where the *Action* receives a favourable or unhappy Turn. (3.) The *Solution*, which is all the *Remainder* of the *Poem*, from that Turn of the *Action* to the End.

Episodes.

THE unnecessary Parts of the *Fable* are the *Episodes*, or *Under-actions*; as small *Digressions*, *Relations* of other Matters, &c. which, tho' they are not an essential Part, ought always to be congruous and dependent on the main *Action*, and very pathetic.

Manners, &c.

THE *Manners* and *Sentiments* fall under the same Rules as those of *Tragedy*; but the *Diction* is more sublime, noble, and figurative, and the best that Language and Art can produce.

*The Properties
of this Poem
in Verse.*

We've told the Rules which *Tragedy* maintain,
But the *Heroic* claims a loftier Strain.
In the Narration of some great Design
Invention, *Art*, and *Fable*, all must join:
Here *Fiction* must employ its utmost Grace,
All must assume a *Body*, *Mind*, and *Face*.

Would you your Reader never should be tir'd?
Chuse some great *Hero* fit to be admir'd.
In *Courage* signal, and in *Virtue* bright;
Let ev'n his *Imperfections* give *Delight*.
Let his great *Actions* our *Attention* blind;
Like *Cæsar* or like *Scipio* frame his *Mind*.
And not like *OEdipus* his perjur'd Race;
A common *Conqueror* is a *Theme* too base.
Chuse not your *Tale* too full of *Incidents*;
Too great *Variety* obscures the *Sense*.
Achilles' Rage alone when wrought with Skill
Abundantly does a whold *Iliad* fill.
Be your *Narrations* lively, short, and smart;
And in *Descriptions* shew your noblest Art.

There

There 'tis your *Poetry* may be employed ;
 But *trivial Accidents* be sure t'avoid.
 Let no *mean Objects* stay the *curious Sight* ;
 Allow your *Work* a *just* and *noble Flight*.
 Be your *Beginning* plain, and take good heed
 Too soon you mount not on the *airy Steed* ;
 Nor tell your *Reader* in a *thund'ring Verse*,
I sing the Conqueror of the Universe.
 What can an *Author* after this produce ?
 The *lab'ring Mountain* must bring forth a *Mouse*.

In the abounding *Treasure* of his *Mind*
 The *Poet* does a *thousand Figures* find ;
 With these *gay Ornaments* his *Story* grace,
 And ev'ry thing in *beautious Colours* trace.
 At once he is both *Pleasing* and *Sublime*,
 And scorns a *heavy melancholy Rhyme*.
 Thus *Homer's Works* *vast Treasures* do unfold,
 And whatsoe'er he touches turns to *Gold*.
 All in his *Hands* *new Beauty* does acquire,
 He always *pleases*, and can never *tire*.
 A *happy Warmth* he every where may boast,
 Nor is he in too long *Digressions* lost.
 His *Verses* without *Art* a *Method* find,
 And of *themselves* appear in *Order* join'd.
 All without *Trouble* answers his *Intent*,
 Each *Syllable* still tends to the *Event*.
 Let his *Example* your *Endeavours* raise ;
 To love his *Writings* is a *kind of Praise*.
 How great the *Work* ! *Three thousand Years* have

Yet but *three Poets* have this *Poem* grac'd ;
 First *Homer*, *Virgil* next, then *Milton* both sur-
 [pass'd, }
 [pass'd.] }

WE have now view'd the *noblest* and most *magnificent* Structures of the *Art of Poetry* : But there yet remain some *low* and *meaner Buildings* and *Out-houses*, which make, as it were, the *Suburbs* of the *Art*, and afford *Habitation* to great Numbers of the *meaner Sort* of the *rhyming Tribe*, which we shall take but very short Notice of, and so leave them. The *Principal* of these is

The EPIGRAM.

Of Epigram.

AN *Epigram* is a short witty *Poem*, or Copy of Verses, playing on the *Fancies* and *Conceits*, arising from any kind of *Subjects*, and whose distinguishing and peculiar Characters are *Brevity*, *Beauty* and *Point*; which last is a sharp and biting Turn of *Wit*. In this *Martial* is a *Master-piece*.

*Its Characters
and chief
Properties*

The *Epigram*, with little Art compos'd,
Is one good Sentence in a *Distich* clos'd;
Though it to twenty Verses may extend,
But best when it in two or four does end.

The *Epigram* in Shortness takes Delight,
And though all Subjects are its proper Right,
Yet each of one alone can only write.
Two Parts this little Whole must still compose,
Recital of the Subject, and the Close.
To make this Poem perfect, be your Care
That Beauty, Points, and Brevity appear.

*Acrostic and
Anagram.*

THE *ACROSTIC* is a Poem or Number of Verses, whose Property is, that the Initial Letters of the Lines make up some Person's Name, Title, or some particular Motto. But Mr. Spectator is not certain which was the greatest Blockhead, he who invented *Acrostic*, or the Inventor of the *Anagram*; but however he has done both the *Acrostic* and the *Anagram* the Justice to reckon them first among the Species of false Wit.

An Epithalamium, what.

AN *EPITHALAMIUM* is a Nuptial Song or Poem: This is sung on the *Wedding-Night*; the Subject of which are the Joys and Praises of the Bride and Bridegroom. Here the Poet takes notice of the Country, Kindred, Course of Life and Studies, the Beauties of their Persons, and the Endowments of their Mind, and celebrates them all. He dwells on the Felicity of Matrimony, of their Nuptials in particular, and the Events which brought it about. He sweetens the Diction with Kisses and other conjugal Amours and Endearments; he introduces a Chorus of Deities, the Graces and the Muses, all exulting with Joy,

Joy, and promising to crown the *new-married Couple* with all *auspicious Events*. In fine, he makes the *Graces* put them to Bed, and there leaves them to the *Directions* of *Hymen* and *Venus*; and, without *Hesitation*, prophesies of their *future numerous Offspring*, and wishes them all *Happiness for a Conclusion*.

GENETHLIACON is a *Birth-Day Ode* or *Genethliacon or Birth-Day Ode*. Song; wherein the Poet saith abundance of fine Things concerning both the Child's *Parents* and *Pedigree*, and the *Child*, or *new-born Infant* itself. The *brave and heroic Actions* of the *Parents*, their *Family* or *Ancestors* are commemorated, their *signal Virtues* celebrated. The *propitious Influences* of the *Deity*, the *Stars*, the *guardian Angels*, and especially the *Genius* which rules the *Birth* and attends the *Child* through his *Life*, are all celebrated in the most *august Manner*. He also takes notice of the *Oracles*, *Auguries*, *Dreams* of the *Parents*, &c. which preceded the *Birth*; and concludes with wishing the *Life* and *good Fortune* of the *Babe*, and the *Parents* all *Happiness* and *Comfort* therein.

PANEGYRIC is a *laudatory Poem* or *Speech*, *Panegyric*. made before an *Assembly* of *People*, and receives various *Epithets* according to the *Subject Matter* and *Design*: As *Eucharistic*, which returns *Thanks*; *Encomiastic*, when it is an *Oration* of *Praise*; *Parænitic*, which gives *Instruction*, &c.

PALINODY is a *Poem* wherein we accumulate *Praises* on a *Person* whom before we had treated with *Aspersions* and *Reproaches*, and make a solemn *Recantation* of our *Prejudices* and *unjust Opinions*. *Palinody*.

EPICEDIUM is a *funeral Song*, which was *Epicedium*. us'd to be sung at the *Exequies*, or *Solemnization* of the *funeral Rites* and *Solemnities*, before the *Body* of the *Deceas'd* was inhumed. It consisted chiefly of the *Praises* of the *Dead Person*, on the *Frailty* and *Fickleness* of *Life*, the many and *funebrous Occasions* of *Death*; our own and others *Grief* thereat; *Excitations* to *Mourning* and *Lamentation*, not only of *Men*, but *inanimate Creatures*; *Consolations* to the *Friends* and *Relatives* of the *Deceas'd*, setting forth the *Happiness* of the *Dead* in being deliver'd from a *Life* full of *Afflictions* and *lugubrious Accidents*.

Nenia.

NÆNIA was a Song that was sung at the *funeral Pile* to the *Pipe* or other *Music*, which play'd while the *Body* was consuming: herein they *prais'd* the *Deceas'd*, and stirr'd up the *People* who stood by to *Weeping* and *Mourning*.

Epitaph.

EPITAPH is a sort of epigrammatic Poem or Speech, which at first used to be *pronounced* at the *Tomb* of the interr'd *Body*; but since it is taken only for the *Inscription* on the *Tomb*, relating the *Name*, *Sex*, *Age*, *State*, *Merits*, *Honours*, *Praises* both of *Person* and *Mind*, the *Kind* of *Death*; and calling upon *Passengers* and *Spectators* to a serious *Reflection* on *Mortality*, and the *lubricous State* of *Life* they are now in, and themselves taken from.

Cento.

CENTO was a kind of Poem made up of several *Sentences* and *Pieces* taken from the *Works* of others; thus *Ausonius* made an *Epicidium* or *Nuptial Song* out of *Virgil's* *Writings*, and the *History* of our *Saviour* has been compos'd of *Sentences* taken from *Homer's Poems*.


Echo.

ECHO is a jocosse and merry *Epigram*, wherein the *Verses* return the *Sound* of the *last Syllables* of many *Words* in a different *Sense*.



of

Of CRITICISM.

RITICISM, or, as it is otherwise call'd, *Critics*, is a Word of Greek Original, the Theme whereof signifies to judge or censure, or give one's Opinion of any Thing ; agreeable to which, these Words have been appropriated to that *Art, Skill or Science*, which consists in a *learned, exact and curious Examination of the Words, Writings, and Actions of Men*, distinguishing what is good, just, beautiful and praise-worthy in them ; and pointing out the *Faults, Errors, Defects*, and whatever is inconsistent with the *Rules of true and polite Learning, and good Sense* ; censuring each Particular with its proper Character and Epithet, and duly expressing the Nature thereof.

Of Criticism

Definition thereof.

A Critic, then, is one well skill'd in judging, censuring and characterizing the *Actions, Words and Writings* of Men ; and capable of discovering their more secret *Beauties and Defects*, which he knows are really such according to the *Nature of Things*, which he makes his grand *Criterion*, or Rule of *Judgment*. And such a Person, when he exerciseth his Art, is said to *criticise* upon a Man, his Words, or Writings, &c.

A Critic, who.

If this Definition of a Critic and his Art be well considered, it will appear that no *small Stock of Abilities* is requisite to entitle a Man to a just Claim to this excellent Character ; notwithstanding so many make Pretensions thereto. Both *Art and Nature* must conspire to make a *good Critic*, as well as a *good Poet*. As Mr. *Pope* has excellently well observ'd in the following Lines.

Great Abilities requisite to a Critic.

They both alike from Heav'n derive their Light,
These born to judge, as well as those to write.

*A Punster no
Critic.*

HENCE we observe, that 'tis an equal Absurdity to pretend to be thought a *Critic* for the sake of a few low and quibbling *Censures*, *Puns*, and *Witticisms*, upon an Author, as to be esteem'd a *Poet* for scribbling a few dull Lines on any notable Subject. For,

In *Poets* as true *Genius* is but rare,
True *Taste* as seldom is the *Critic's* Share.

*Good Critics
more rare than
good Authors.*

THE same great Person begins his *Essay on Criticism* with an Observation of a like Nature ;

'Tis hard to say if greater want of Skill
Appear in *writing* or in *judging ill* :
But of the two less dangerous is th' Offence
To tire our Patience than mislead our Sense.
Some few in that, but *Numbers* err in this ;
Ten censure wrong, for *one* who writes amiss.

*Good Authors
the best Critics.*

AGAIN, 'tis reasonable to imagine that those only are fit to be *Judges* of Authors, and their Writings, who themselves are capable of composing, and *writing well*, and in a *good Taste* ; and therefore the Poet's Admonition is very seasonable :

Let such *teach* others who themselves *excel*,
And *censure* freely who have written well.

*The true Critic's
Character is an uni-
versal one.*

THAT of a *Critic* is no *partial*, but an *universal Character* ; for considering *Criticism* as an Art, though Men may be exceeding good Judges in some particular Matters relating to their Business and Profession, they will never merit the Title of *Critics*, unless they are profoundly skill'd in the Knowledge of all Things requisite to qualify them to judge and determine of all Things, so far as to distinguish their Beauties and Perfections, and their Faults and Imperfections, which is the proper Province of the Art of *Criticism* : Tho' it must be allow'd, that Men may *criticise* best on such Subjects as are most familiar to their Studies, and most practis'd by them. 'Tis impossible we should be equally capable of judging concerning all Things indifferently ; and can only pretend to a *perfect Mastery* in one Art or Faculty at most, and sometimes we may come short of that : Since One

One Science only will one Genius fit,
So *vast* is *Art*, so narrow human *Wit*;
Not only bounded to peculiar Arts,
But oft in those confin'd to single Parts.

IN order then to define and establish the Character of an *universal Critic*, 'tis necessary to consider the constituent Parts, and the Sources whence they are derived; these are two, *viz. Nature and Art*. *Nature* lays the Foundation, and *Art* raises thereon and embellishes the Superstructure.

The several Sources thereof.

Unerring *Nature* still divinely bright,
One clear unchang'd and universal Light,
Life, Force, and Beauty, must to all impart,
At once the *Source, the End, and Test of Art*.
Art from that Fund each just Supply provides,
Works without Show, and without Pomp presides.

THE Parts which Nature furnishes towards constituting a Man a *Critic* are very many; among which we may reckon the following as principal.

The Natural Parts of a Critic.

FIRST, *Magnanimity*, or a large *capacious Mind*, sometimes call'd a *Greatness of Soul*. By this special Bounty of Nature a Man is capable of receiving and containing a very great Store of *Ideas*, of every Sort from the *noblest* to the *meanest Class*. A *capacious Mind* is the *Storehouse* of a *Critic*; it is the *Repository* of his Materials of *Art*, whereby he forms his Judgment from whence his Criticisms proceed. Here he finds the wondrous Infinity of *Images* and *Portraits* of Natural Objects, drawn with Nature's own unerring Hand in *Miniature*, by which he examines all the Productions and Works of *Art*, and can soon perceive the Relation between them, and point out their Agreement or Incongruity, and therefore can censure accordingly.

Magnanimity, or Greatness of Soul.

Great Minds alone can the vast World contain,
And store *Ideal Natures* in the Brain.
To them the great Prerogatives belong
To judge and censure what is right or wrong:

And

And theirs, and not of *little Minds*, the Part
To shew from *Nature* what is *just* in *Art*.

*A free and
easy Conception*

Secondly, A *clear, free and easy Conception* of Ideas and their various Natures, Relations and Differences, is the next indispensable Quality in a *Critical Genius*; that is, he must have what we generally call a *clear Head*. A large Mind of Ideas, like the *Atmosphere of Atoms*, had need be very clear and serene, that all things therein may be perceiv'd *visible* and *distinct* by the *Mind's Reflection*; else *Darkness, Obscurity, and Confusion* will perpetually possess the Mind, and perplex it with inextricable Difficulties in all its Inquiries and Researches.

As when thick Mists or Fogs obscure the Air
We, lost in Error, wander here and there,
Fill'd with Anxiety and wild Despair,
We seek our Way, and often seek in vain,
Till *Sol* relucet sets us right again.

*A fine and ex-
quisite Taste.*

Thirdly, He must be possess'd with that *Principle* which gives him a nice and true Notion of what is agreeable, or disagreeable; pleasant, or unpleasant; beautiful and formous, or ugly and informous; plausible, or despicable; with every other Quality and its Opposite, in all his Ideas of Things: And this Principle we may call the *Standard of Nature*, and is the grand Criterion of *universal Criticism*, and remains invariable and always the same. From this *Affection of Nature* it is that we are so much more delighted and pleased with some things than others; that some Ideas transport us almost beyond our Senses, and sometimes our very Reason too, and fill our Souls with *extatic Joys* and *unspeakable Pleasures*; that others affect us but *indifferently*, and are neither much *desireable* nor *detestable*; and lastly, that some affect us with very disagreeable and uneasy Sensations, and cause in us an utter *Abhorrence, Detestation* and *Aversion* to them. Now, unless a Man be truly inspir'd with this Principle, and can, in virtue thereof, find himself nicely affected with all the various Degrees of *Sensation* from the *most detestable* to the *most ravishing* which arise from

from the Ideas of Things, he will never be able to rise above the Character of a *dull Critic*.

Fourthly, A *natural Wisdom* or *Sagacity* is another Qualification necessary to constitute a *Critic*: by this he is enabled to make a *true Division* of the various Parts of his *Ideas*, which are intended as the Subject of his *Scrutiny* and *Criticisms*; and to make proper Arrangements and Distributions of them, according to their different *Natures*, *Kinds*, and *Species*; otherwise he can never make a *just Comparison* in order to form a *Judgment* concerning them; but must be perpetually puzzled and perplexed amidst his own *Blunders*, and mistake the *Sense* and *Meaning* of Things. 'Tis this Talent gives a Man a *Logical Head-piece*, without which he must as absurdly aim at the noble Title of a *Critic*, as he endeavours to escape the odious Appellation of a *wretched Blunderer*.

'Tis *native Logic* which must form the Mind
Of him who for a *Critic* is design'd;
Without this Faculty in vain he tries
To be thought *Critic*, or to *criticise*;
A diff'rent Fate attends him, for alas!
He's deem'd a *blundering*, *dull*, *ignoble Ass*.

Fifthly, A *good Memory*, *tenacious of Impressions* of every kind, and form all Sorts of *Ideas* or *Objects*, is another *Essential* in the Composition of a *Critic*. For though Mr. *Pope's* Observation is often confirm'd by Experience,

That, in the Soul while Memory prevails,
The solid Pow'r of Understanding fails;

yet this is not always the Case: Some Men are equally bless'd with *great Memories* and *great Understanding*, and unless it were so we might in vain expect to see or boast of a *finish'd Critic*. 'Tis certain a Man cannot become excellent in any Art or Science without a considerable *Memory*; and 'tis as certain that *Criticism* requires this Talent in the highest Degree of Perfection, human Nature is capable of; the Reason whereof may appear farther on.

Sixthly,

A fine Imagination and sprightly Fancy.

Sixthly, *A fine Imagination, and sprightly Fancy*, are necessary in a genuine Critic. As *Magnanimity* is the Faculty of treasuring up vast Stores of Ideas, so *Imagination* is the Power of viewing, comparing, altering and compounding the Images of Objects received in our Minds, into all the Varieties of *Picture* and *Vision*, that are agreeable or delightful to the *Fancy*. There is abundance of Work for the *imaginative Faculty* in *Criticism*: A Critic ought to be exceeding apt and ready at forming *Guesses*, *Conjectures*, and *plausible Hypotheses*: Where the Nature, Coherence, Relation or Reason of things are latent and obscure, there an *ingenious Imagination* assists much in forming the *Criticism*, and a *sprightly Fancy* sets it off with a peculiar *Grace* and *Air*. In short, this Power of the Mind will at least exempt him from the *Opprobrium* of a *Dullard*; and his *Conjecture* will be allow'd to be an *artful Hypothesis*, when it can't be supposed a *true* or *just Criticism*. When Mr. *Pope* says,

Where Beams of warm Imagination play,
The Memory's soft Figures melt away;

he is to be understood of *People in common*, particular Cases excepted; for what are *great Genius's*, as *Virgil*, *Milton*, *Newton*, *Locke*, *Addison*, and Mr. *Pope* himself, but *Exceptions* to the general Model and Standard of human Nature? The Faculty of *Fiction* is almost as necessary in a Critic as in a Poet; the latter being in a great measure the Subject of the other's Art.

For gen'rous Critics fan the Poet's Fire,
And teach the World with Reason to admire.

An Happiness of Diction.

Seventhly, 'Tis requisite a Critic should have the Happiness of a *free, clear and easy Diction*. The manner of Expression is a Matter of great Importance in *Criticism*. We are beholden to this Art for the good Offices it does us in explaining and discovering to us the concealed and recluse Beauties and Perfections of an Author's Performance, &c. but if this be undertaken in an *uncouth, confused and obscure Language*,

Language, we, instead of being *instructed*, are but doubly perplex'd and confounded, and therefore little obliged to such *Criticisms*. Not that a *Critic* should be *verbose*; for

Words are like Leaves, and where they most
[abound]
Much *Fruit of Sense* beneath is rarely found.

But his Expression should be concise as well as clear; genuine, not foreign to the Matter; and fertile with Ideas, sententious and pregnant with Sense; and ever presented with a serious and instructive Air.

Thus true Expression, like the radiant Sun,
Clears and improves whate'er it shines upon;
It gilds all Objects, but it alters none.
Expression is the Dress of Thought, and still
Appears more decent, as more suitable.
In *Words*, as *Fashions*, the same Rule will hold,
Alike *fantastic*, if too new, or old.

Mr. Pope.

THESE are the principal Qualifications requisite to constitute a *critical Genius*. If a Man be thus endowed by Nature, I think 'tis plain he is thereby render'd capable of a *good Understanding*, a *great Share of Learning*, and consequently of becoming a Man of *Genius*, *fine Taste*, *Sublimity of Thought*, and *Solidity and Profundity of Judgment*; all which together compleat the Character of a *Critic*.

BUT next to these *Natural Qualities*, there are certain *Moral Dispositions*, which make a Man some-
The moral Qualities of a
what more than a mere *Critic*, and that is, a *just and good Critic*.

Learn then what *Morals Critics* ought to show,
For 'tis but half a Judge's Task to know.
'Tis not enough *Wit*, *Art*, and *Learning* join;
In all you speak let *Truth* and *Candour* shine:
Without good *Breeding* *Truth* is disapprov'd;
That only makes superior Sense below'd.

Mr. Pope.

TRUTH

*Truth and
Honesty.*

TRUTH and *Honesty* are the primary Excellencies in a *Critic*; for he to whom the Liberty is indulged of dealing with Men's *Character*, *Reputation* and *Merit*, ought above all others to be supposed to have the strictest and most sacred Regard to those Principles, which are the eternal Rules of doing Justice in the way of *Judgment* and *Censure*. What wretched and detestable *Murderers* of Men's *Names* and *Fame* are those, who, in their *Criticisms*, shall, for the sake of any Influence whatever, take the horrid Liberty of departing from the *sacred Laws of Truth*, and violate the *Ties of Honour and Honesty*!

Good Critics scorn *Deceit*, and hate a *Lie*;
They'll dare to *speak the Truth*, though for't to
[*dye*.

'Tis not the *low Condition*, the *Applause* of another, the *Debasement* of one's self, the *Favour* of the *Honourable*, or the *Frowns* of the *Powerful*, which can hinder an *honest Critic*, from speaking freely what he thinks is *Trnth*.

*Candour and
Ingenuity.*

CANDOUR is the next *moral Perfection* in a *Critic* of *Worth*. This indeed is always a *Concomitant* of *Truth* and *Honour*, but yet is very different from them; for a Man, though he does not falsify the *Truth*, may be *disingenuous*, and conceal it, and prove *partial* to *Merit*; which Faults are entirely prevented in a *Critic* of a *candid Mind*. A *Critic* who deals *ingenuously* with an *Author*, will be as careful to *discover* and recommend the *Wit* and *beautiful Passages* in any *Performance*, as to detect and expose the *Faults* and *Imperfections* thereof; the former he doth with *Pleasure*, the latter with *Regret*.

A *Candid Judge* will read each *Work* of *Wit*
With the same *Spirit* that its *Author* writ;
Survey the whole, nor seek *slight Faults* to find
Where *Nature* moves and *Rapture* warms the
[*Mind*;

Nor lose, for that malignant dull *Delight*,
The gen'rous *Pleasure* to be charm'd with *Wit*.

GOOD-

GOOD-NATURE is next among the amiable *Good-Nature*.
Morals of a *Critic*; 'tis this excellent Quality which
tempers all his *Criticisms* with a *sweet* and *generous*
Grace and *Air*. A kind, benevolent and good-natur'd
Criticism, though it be design'd to remark upon our
Faults, is nevertheless agreeable and engaging; and
gives us Grounds to think at the same time, the
Critic hath a good Opinion of us, and would take a
superior Pleasure in *criticising* in our Favour. A
benevolent Critic knows,

Whoever thinks a faultless Piece to see,
Thinks what ne'er was, nor is, nor e'er shall be.

SUCH a *Critic* always considers the Scope and End
of the Author; and thinks it but reasonable to make
allowance for *human Nature* and *Frailties*. He readily
grants,

That if the Means be just, the Conduct true,
Applause, in spite of trivial Faults, is due.

He knows moreover, that

In Wit, as Nature, what affects our Hearts
Is not th'Exactness of peculiar Parts;
'Tis not a *Lip*, or *Eye*, we Beauty call,
But the *joint Force* and *full Result* of all.

Longinus observes, that the Productions of a great *An Observa-*
Genius, with many *Lapses* and *Inadvertencies*, are in- *tion of Longi-*
nitely preferable to the Works of an inferior Author, *nus.*
who is scrupulously exact, and conformable to all the
Rules of correct Writing.

Such even Wits, as neither *ebb* nor *flow*,
Correctly cold, and regularly low,
That shunning Faults one quiet Tenor keep,
We cannot *blame* indeed—but we may *sleep*.

Mr. *Pope* further observes to this Purpose;

Some Beauties yet no Precepts can declare,
For there's a *Happiness*, as well as *Care*;
And nameless Graces which no Methods teach,
And which a *Master-Hand* alone can reach.

*Of Critical
Licence.*

Great

Great Wits sometimes may gloriously offend,
And rise to Faults true Critics dare not mend,
From vulgar Bounds with brave Disorder part,
And *snatch a Grace* beyond the Reach of Art.

If then Nature has liberally endowed a Man with the fore-mention'd great Capacities and Talents, and he be at the same time a Man of *Truth* and *Honour*, *Candour* and *Good-nature*, there remains only one great Qualification more, to establish him a competent Judge of Men and Things; and that is *universal Learning*.

The Qualifications of a Critic arising from Art.

Literary Genius.

Mathematical and Mechanical Knowledge

All kind of Philological Learning.

Especially Grammar and Languages.

ART therefore puts the finishing Hand to a Critic. Mr. Addison observes—There is nothing more absurd than for a Man to set up for a Critic without a good *Insight into all the Parts of Learning*. He must have a *Literary Genius*, and true Relish for all *polite and learned Sciences*: Nor is this sufficient yet; he must acquire a tolerable Knowledge and Acquaintance even with the Mysteries of *Mechanical and Manual Arts and Trades*, with the *Phraseology* and manner of *Operation* in each. In the Critic we expect to find, not only great Endowments of Nature, but the most ample Accomplishments of Arts, and universal Knowledge. The Business of a *Taylor*, *Cobler* or *Tinker*, may sometimes afford Matter or Occasion to exercise the Talent of a Critic as notably as the *sublimier Speculations of the Grammarian, Geometrician, Theologist, or Philosopher*. But above all things a Person ought to have a perfect *Mastery of Language*; not only the *Oriental*, as *Hebrew, Chaldee, Arabic, Æthiopic, &c.* but the *Western*, as the *Latin, Italian, Spanish and French*, together with the *Greek* in all its *Dialects*; and also the *Northern Languages*, as the ancient *Gothic, Saxon, Franc, German, Dutch or Teutonic, Danish, &c.* Because without these he can never be so good a Judge of *Philological Literature* in all its Branches, which is the most usual Subject of *Criticism*; nor yet of his *native Language*, which is derived from many of them; the peculiar *Beauties, Force, and Propriety* of which ought to be most illustriously display'd in a Critic.

HAVING thus shew'd that all the *Forces of Nature and Art* must join to finish a Critic, and also what

moral

moral Qualities are requisite to denominate him a good one, I shall next briefly point out the Characters of a bad Critic in some notable Particulars. For in this, as well as in all other Arts, there are very bad Performers.

If *Mævius* scribble in *Apollo's* Spight,
There are who judge still worse than he can write.

POPE.

THE first Characteristic of a bad Critic is Want of The Character of a Genius, and a Mind peculiarly form'd for such Speculations. On this Account many monstrous and misshapen Productions have had a Birth in this Province of the Republic of Letters. Against these Mr. Pope points his Satyre.

Some have at first for Wits, then Poets past,
Turn'd Critics next, and prov'd plain Fools at last.
Some neither can for Wits nor Critics pass,
As heavy Mules are neither Horse nor Ass.
Those half-learn'd Witlings numerous in our Isle,
As half-form'd Insects on the Banks of Nile,
Unfinish'd Things, one knows not what to call,
Their Generation's so equivocal.

ILL-NATURE is the worst of all the bad Qualities of a Critic: They who attempt to criticise with this unhappy Disposition, prove more formidable and cruel than the *Papish Inquisitors*; they seize upon the miserable Author's Fame and Merit, and torture him without Remorse. As it is impossible they should have a good Opinion of another Man's Performance, so little Good-Nature, Ingenuity, or Forgiveness is to be expected from them. They never fail of meeting with hard Quarters, who wretchedly fall under the severe Lashes of their malignant Tongues or Pens: But as the chief End of those enormous Productions of Nature is to delight themselves in sporting with, and endeavouring to destroy the Character and Esteem of Men eminent for Virtue and Wisdom, so they never fail of rendering themselves odious and detestable to all considerate and judicious Men; and as such I leave them.

Q

PRIDE,

Pride.

PRIDE, next to *Ill-Nature*, is a Quality the most to be condemn'd in a *Critic*. Concerning the *proud Censurer*, hear the excellent Poet Mr. *Pope*.

Of all the Causes which conspire to blind
Man's erring Judgment and misguide the Mind,
What the weak Head with strongest Biass rules
Is *Pride*, the never-failing Vice of Fools.
Whatever Nature has in *Worth* deny'd,
She gives in large Recruits of needful *Pride*.
For as in Bodies, thus in Souls, we find
What wants in Blood and Spirits, swell'd with
[Wind:

Pride, where *Wit* fails, steps in to their Defence,
And fills up all the mighty *Void of Sense*!
Thus where *right Reason* drives that Cloud away,
There *beamy Truth* shines with resistless Day.

Caprice and Affectation.

THE *Capricious* and *Affected Critic*, who can relish only some particular Things, and rejects the Whole for want of these, makes the next Class of bad Judges. Some affect to make their *Criterion*, a fine Conceit, a glittering Thought, or Point of Wit; others judge a Performance by the Language, Style and Phrase, not attending to the Sense and Justness of the Ideas and their Connections. Again, some admire none but *foreign*, others none but *antient*, and others none but *modern* Productions. *Lastly*, The Affectation of some is so wonderfully contrary to that of others, that some are to be found who can praise nothing, but what every body praises; while others take as much Care to be singular, and will rather *judge wrong* by themselves, than *right* with the Multitude. But those who judge things *right* or *wrong* according as the Author is of their Opinion or Party, or on the contrary side, I do not dignify so much as with the Name of *bad Critics*, but rather that of *bigotted* or *prejudiced Coxcombs*.

Pedantry.

IN the last Place, the *Pedantic Critic* we find in the Rear of this Tribe. A *Smatterer* in Learning may serve to make a *Criticaster*, as well as one in *Verse* a *Poetaster*; but both are alike dishonourable to the Science. For *Critics*, like *Poetry*, is an Art which can admit no Mean between *very good*, and
very

very bad; that is, a *Hypercritic* and a *Criticaster*. 'Tis easy for Persons to have Learning enough to deserve the latter *Epithet*, but 'tis with much more Difficulty they merit the former. In short, a *Pit-tance of Learning*, as it is often most hurtful to Religion, so it always is to *Critics*; in puffing the Mind up with Vanity and Conceit, and a Presumption which generally spends itself in *Ridicule*, *Contempt*, and *ungenerous Reflections* on Men of Merit and solid Judgment and Learning. To this Purpose the before-mention'd celebrated Poet sings:

A little Learning is a dang'rous thing;
 Drink deep, or taste not the *Pierian Spring*:
 There shallow Draughts intoxicate the Brain,
 And drinking largely sobers us again.
 Fir'd at first Sight with what the Muse imparts,
 In fearless Youth we tempt the Heights of Arts;
 While from the bounded Level of our Minds
 Short Views we take, nor see the Lengths behind,
 But more advanc'd behold with strange Surprise
New distant Scenes of endless Science rise!

HAVING thus particularized the Character of a *Rules and ge-*
Good and Bad Critic, it may be proper next to subjoin *neral Instruc-*
 the excellent Advice and Instruction which Mr. Pope *tions for*
 gives to those who engage in Works of *Criticism* and *Critics by*
Censure. *Mr. Pope.*

—But you who seek to give and merit Fame,
 And justly bear a *Critic's* noble Name,
 Be sure yourself and your own Reach to know,
 How far your *Genius*, *Taste*, and Learning go;
 Launch not beyond your Depth; but be discreet;
 And mark that Point where Sense and Dullness meet.
 Nature to all Things fix'd the Limits fit;
 And wisely curb'd proud Man's pretending Wit:
 First follow Nature, and your Judgment frame
 By her just Standard, which is still the same.
 Trust not yourself, but your Defects to know
 Make use of ev'ry *Friend*—and ev'ry *Foe*.
 Be not the first by whom new Terms are try'd,
 Not yet the last to lay the old aside.

Avoid Extremes, and shun the Faults of such
 Who still are pleas'd *too little or too much*.
 At *ev'ry Trifle* scorn to take Offence;
 That always shows *great Pride or little Sense*.
 Those *Heads*, as *Stomachs*, sure are not the best
 Which nauseate all, and nothing can digest:
 Yet let not each *gay Turn* thy Rapture move;
 For *Fools admire*, but Men of Sense approve.
 Regard it not, if *Wit* be *old or new*;
 But blame the *false*, and value still the *true*.
 Nor for the sake of *Imitation* err;
 Nor chuse, for *Learning*, to be singular.
 Think not your *Reputation safe*, because
 Or *Fools admire*, or *Vulgar give Applause*.
 Be thou the first true Merit to befriend;
 His Praise is lost, who stays till all commend.
 Of old those met Rewards who could excel,
 And such were *prais'd who but endeavour'd well*.
 To what base Ends, and by what abject Ways,
 Are Mortals urg'd through sacred Lust of Praise!
 Ah ne'er so dire a *Thirst of Glory* boast,
 Nor in the *Critic* let the *Man* be lost.
 Let *Vice* and the *Prophane* your *Darts* engage;
 There point your Thunder, and exhaust your Rage.
 Yet shun their Fault, who scandalously nice,
 Will needs mistake an Author into Vice.
 All seems infected that th' Infected spy,
 As all looks yellow to the jaundic'd Eye.
 Be silent always when you doubt your Sense,
 And speak, tho' sure, with seeming Diffidence.
 Some positive, persisting Fops we know,
 That, if once wrong, will needs be always so;
 But you with Pleasure own your Errors past,
 And make each Day a *Critic* on the last.
 'Tis not enough your Counsel should be true,
 Blunt Truths more Mischiefs than nice Falshoods do.
 Men must be taught as if you taught them not,
 And *things unknown* propos'd as *things forgot*.
 Be Niggards of Advice on no Pretence,
 For the worst *Avarice is that of Sense*.
 With mean Complacence ne'er betray your Trust,
 Nor be so civil as to prove unjust.
 Fear not the Anger of the Wise to raise;
 Those best can bear Reproof who merit Praise.

Fear

Fear most to tax an honourable Fool,
 Whose Right it is *uncensur'd to be dull*.
 'Tis best sometimes your Censure to restrain,
 And charitably let the *Dull* be *Vain*.
 Your Silence there is better than your Spight,
 For who can rail so long as they can write?
 Of Censure careless be, nor fond of Fame,
 Still pleas'd to praise, yet not afraid to blame;
 Averse alike to flatter, or offend,
 And, as not faultless, not too vain to mend.
 But where's the Man, who Counsel can bestow,
 Still pleas'd to teach, and yet not proud to know;
 Unbias'd or by Favour or by Spight;
 Not dully prepossess'd, or blindly right;
 Tho' learn'd, well-bred; and tho' well-bred, sincere;
 Modestly bold, and humanly severe?
 Who to a Friend his Faults can freely show,
 And gladly praise the Merit of a Foe;
 Blest with a Taste exact, yet unconfin'd,
 A Knowledge both of Books and human Kind;
 Gen'rous Converse; a Soul exempt from Pride;
 And Love to Praise, with Reason on his Side?





Of GEOGRAPHY; Or, The DESCRIPTION of the GLOBE of LAND and WATER.

*Geography
defined.*

*Its Division
into Geography
properly so
call'd and
Hydrography.*

*Proper or spe-
cial Geography
divided into
Chorography
and Topogra-
phy.*

*The Principles
of Geography.*



GEOGRAPHY is a Description of the Surface of the *Earth*, or *terraqeous Globe*, and all its Parts; and may be divided into two great Parts, viz. (1.) *Geography* properly so call'd, as it denotes barely a Description of the *Land*, or *terrestrial* Part of the Surface of the *Globe*. (2.) *Hydrography*, which contains a Description of the *Waters*, or *aqueous* Part of the *Earth's* Surface.

Proper or special Geography is again divided into (1.) *Chorography*, which is a Description of particular Countries, as *Great-Britain*, *France*, &c. (2.) *Topography*, which is a Description of particular Places. *Geography* may again be divided into (1.) The *Physical Part*, which treats of the *Nature* and *Qualities* of the several Parts of the *Earth* and its Appennages; as the *Figure*, *Magnitude*, &c. of the *Earth* itself; of *Mountains*, *Seas*, *Rivers*, &c. of *Beasts*, *Birds*, and *Fishes*, &c. (2.) The *civil or political Part*, which treats of *Cities*, *Towns*, *Societies*, *Laws*, *Language*, *Learning* and *Customs*, of the several Peoples and Nations of the *Earth*.

THE Principles on which the Science of *Geography* depends, are of three sorts, viz. (1.) Propositions of *Geometry*, *Arithmetic* and *Trigonometry*. (2.) *Astronomical* Precepts and Theorems. (3.) *Experience*; for the greatest Part of *Geography* is the Result of the Observations and Experience of those who have travell'd and describ'd the several Countries.

SINCE
LONDON

SINCE the Globe or Body of Earth on which we live, is the immediate Subject of this curious and most useful Science, I shall first consider the more *general* and *absolute Affections* thereof, and then those which are more *particular*. Of the first Kind are (1.) The Figure or Form. (2.) The Magnitude or Dimensions thereof. (3.) The Motion of the Earth. (4.) The Situation thereof in respect of the other Parts of the Universe. (5.) The constituent Parts or Substance of the Earth. Of all which in their Order.

Of the general Affections of the Earth.

As to the *Figure of the Earth*, the Antients had different and very odd and absurd Opinions of it. Some thought it was *plain*; others, that it was *concave*; and again some, that it was *quadrangular*; and others, that it was *oblong*, or in Form of a *Parallelogram*. *Crates* resembled it to a *Semicircle*; *Hipparchus* to a *round Table*; *Posidonius* to the Form of a *Sling*; *Leucippus* to the Form of a *Drum*; and others form'd other vulgar and rude Conceptions, and made wretched and senseless Comparisons concerning it; all which were in Time confuted, as the World grew wiser. When and where Mathematical Knowledge came to be understood, *Philosophy* (which without it is generally the most awkward Nonsense) soon convinc'd Men that the Figure of the Earth was that of a *round Ball* or *Globe*; and this Opinion was sufficiently establish'd and even demonstrated by many of the *Antients*, as *Pythagoras*, *Aristotle*, *Archimedes* and others; and indeed common Experience and Knowledge of *Travellers*, *Navigators*, and *Astronomers* does so invincibly attest the *Truth of the Roundness* of the Earth by many infallible Observations and Arguments, that it can never more be doubted of. But tho' the Earth, as to the *general Idea*, be of a *round* or *spherical Form*, yet the *Modern* or *Newtonian Philosophy* (which refines on all others) hath actually demonstrated that it is not exactly *round*, but *spheroidical*, or that of an *oblate Sphere* or *Spheroid*: And that the Diameter of the *Equator*, or from *East* and *West*, is greater than that of the *Poles*, or from *North* to *South*, by about 34 Miles, the Proportion to each other being as 692 to 689.

Of the Figure of the Earth. The odd Notions of the Antients about it.

The true Figure of the Earth is Roundness or Sphericity.

Or rather that of a prolate Sphere, or Spheroid.

THE Magnitude of the Earth is easily attainable many Ways, as I have shew'd in my *Young Trigonometrist's*

Of the Magnitude of the Earth.

meter's Guide. For since it is known to be round, and that one Degree of a great Circle thereof contains 69 and a half of our Statute Miles, 'tis evident the Circumference of the Earth will be 25020 Miles; and therefore the Diameter or Thickness of the Earth is 7964 Miles; the Surface will contain 199250205 Square Miles, and the solid Content of the Earth will be 264466789170 Cubic Miles.

*Of the Motion
of the Earth
about the Sun.*

THE Motion of the Earth about the Sun hath been long asserted by the *Learned*, and denied by the *Ignorant* and the *Enthusiast*, who never fail to oppugn what they don't understand. In the dark Ages of Antiquity *Pythagoras* was the first who discern'd and maintain'd it; which was again lost, with all other valuable Learning, for many Ages, till retriev'd by *Copernicus*, *Galileo*, &c. and is now demonstrated beyond all Exception to equal Judges of the Matter. For since it is sufficiently proved, *That the Squares of the Periodical Times are proportional to the Cubes of the Distances from the Centers of the Orbits, about which the Planets, both primary and secondary, perform their respective Motions*; and that this Law obtains in all the circulating Bodies of the Universe: 'Tis evident the Sun would observe it also, did it really move round the Earth, as it appears to do in 365 Days: But that it does not, observe it is plain; for the Moon moves about the Earth in 27 Days, and is 60 Semidiameters of the Earth distant from us. Now the Square of 27 is 729, and of 365 is 133225; also the Cube of 60 is 216000; therefore say, As 729 : 133225 :: 216000 : 39460356, the Cube Root of which is 340 nearly, which therefore should be the Distance of the Sun in Semidiameters of the Earth: But 'tis well known the real Distance of the Sun is above 2000 Semidiameters; according to which it could not turn round the Earth in less than 5196 Years, if it observed the same general Law which all the rest of the heavenly Bodies do. Consequently the Earth moves round the Sun, and not the Sun round it. This is called the *Annual* or *Yearly Motion* of the Earth: Besides which, at the same time, it revolves about its own Axis once in 24 Hours, which is call'd the *Diurnal Motion*, and is the Cause of *Day* and *Night*, as the other is, in part, of the *Seasons* of the Year: All which

*A Proof the
Sun does not
move round
the Earth.*

*The Annual
and Diurnal
Motion of the
Earth.*

which you have largely illustrated in my *Philosophical Grammar*.

SINCE then the Earth is a Body moving round the Sun as its Center, it must be esteem'd a Planet as well as *Mercury, Venus, Mars, &c.* are for the very same Reason; and with respect to them obtains its Place the third from the Sun or Center, having *Mercury* and *Venus* below its Orb, and *Mars, Jupiter,* and *Saturn* above it.

THE internal Substance or Constitution of the Earth is entirely unknown to us at all Depths below the Surface. Some think the central Parts are possess'd by *Fire*, others say by *Water*, but others there place an *immense Loadstone*, from which those lesser *Magnets* we use derive their Virtue and wonderful Properties, as being Parts thereof, and acting in a perfect Conformity to its Nature; But these Things are uncertain. However, certain it is that the outward *Shell* or *Crust* of the Earth is composed of divers heterogeneous Substances, of different Gravities, disposed, for the most part, in the Form of Beds, called *Strata*, or *Layers* of *Earth, Loam, Clay, Chalk, Stones, Sand, Mineral and Metallic Ores, Sulphur, Salts, &c.* variously intermix'd together, as appears from the digging of a Well at *Amsterdam* 232 Feet deep, where the Veins of the Earth, &c. appear'd as follows:

Feet.		Feet.		An Example thereof.
Garden Mould	7	White Loam	4	
Of Turf or Peat	9	Of dry Earth	5	
Of soft Clay	9	Of muddy Earth	1	
Of Sand	8	Of Sand	14	
Of Earth	4	Of Sandy Clay	3	
Of Clay	10	Sand mix'd with Clay	5	
Of Earth	4	Sea-Sand with Shells	4	
Of Paving Sand	10	Clay	102	
Of Clay	2	Loam	31	

Such is the Make of the outward Part of the Earth, which yet is very different in different Places. I now proceed to the two great Parts of *Geography* before-mention'd; and first of

SPECIAL GEOGRAPHY, which treats of the *terrestrial* Part of the Earth's Surface, or that

The Subject of
Special Geo-

we

graphy divided into
Continents.

Islands.

Peninsula's.

Isthmus's.

Promontories.

Mountains.

The Waters
divided into
Oceans.

Seas.

Gulphs.

Streights.

Rivers.

Lakes.

The Definition
of certain Pre-
cognita, viz.
The Axis of
the Globe.
The Poles.

we call *Land*. This admits of the following Divisions, viz. (1.) *Continents*; which are large and spacious Tracts of Land, comprehending divers Countries, Kingdoms, and States, all contiguous to each other, and uninterrupted by Seas or Water. Of these there are four, viz. *Europe, Asia, Africa and America*. (2.) *Islands*; which are Parts of Land entirely encompass'd with Water; such as *Great-Britain, Ireland, &c.* (3.) *Peninsula's*; which are Parts of dry Land every where enclosed with Water, save one narrow Neck by which it is join'd to the Continent. (4.) *Isthmus's* are those Necks of Land which join the Peninsula's to the main Land, and by which People pass from one into the other. (5.) *Promontories*, which are high Parts of Land stretching out in the Sea, the Extremities whereof are call'd *Capes* or *Head-Lands*. (6.) *Mountains*; these are rising Parts of dry Land, well known to all without farther Description.

HYDROGRAPHY, which treats of the watry Parts of the Earth's Surface, divides its Subject as follows, viz. (1.) *Oceans*; which are those mighty Collections of Water that cover the greatest Spaces of the Earth's Superficies, and flow around the Continents. (2.) *Seas*; these are smaller Collections of Water, which are entirely, or for the greatest Part, surrounded by Land. (3.) *Gulphs*; which are those Parts of the Sea that run up into the main Land, and are therewith environ'd, except one Passage whereby it communicates with the open Sea or Ocean. (4.) *Streights*; which are those narrow Passages either joining a Gulph to a Sea, or one Part of a Sea or Ocean to another. (5.) *Rivers*; which are Streams of fresh Water issuing from Fountains, and gliding in large Channels through the Countries to the Sea or Ocean, where they disembogue themselves. (6.) *Lakes* are those small Collections of deep standing Water, entirely surrounded by Land, and having no visible Communication with the Sea.

BEFORE we proceed to treat of the several Parts of Land and Water above-mentioned, it will be necessary to explain the following *Precognita* of the Science. (1.) The *Axis* of the Globe is an imaginary Line passing through the Center thereof, about which the Globe is supposed to turn. (2.) The *Poles* of the Earth

Earth or Globe are the two Extremities of the Axis, one whereof is call'd the *North* or *Arctic Pole*, and the other the *South* or *Antarctic Pole*. (3.) The *Horizon* is that great Circle which bounds our Sight, and divides the Globe into the visible and invifible Hemifpheres. (4.) The *Equator* is that great Circle which divides the Globe into two equal Parts, call'd the *Northern* and *Southern Hemifpheres*. (5.) The *Meridian* is a great Circle paffing thro' the two Poles, and divides the Globe equally into the *Eastern* and *Western Hemifpheres*. (6.) Every great Circle of the Globe is fupposed to be divided into 360 equal Parts, which are called *Degrees*; and every Degree is divided into 60 other equal Parts, call'd *Minutes*. (7.) The *Ecliptic* is a great Circle representing the Sun's *annual Path*, and is inclined to the *Equator* in an Angle of 23 Degrees and 30 Minutes, both Northward and Southward. (8.) The *Tropics* are two leffer Circles which run parallel to the *Equator*, and touch the *Ecliptic* on each Side; that on the *North* is call'd the *Tropic of Cancer*, and the other on the *South* the *Tropic of Capricorn*. (9.) The *Polar Circles* alfo run parallel to the *Equator*, and at the fame Distance from the *Poles*, as the *Tropics* are from the *Equator*, viz. 23 Degrees and a half. That Circle on the *North* is call'd the *Arctic Circle*, and the other on the *South* the *Antarctic Circle*. (10.) *Latitude* is the Distance in Degrees from the *Equator* towards either of the *Poles*, and meafur'd upon the *Meridian* to the *North* or *South*; whence arifeth *North* or *South Latitude*. (11.) *Parallels of Latitude* are leffer Circles parallel to the *Equator* and each other, and are drawn thro' every 5 or 10 Degrees of *Latitude North* and *South*. (12.) *Longitude* is the Distance in Degrees from the firft *Meridian*, and meafur'd on the *Equator* from *West* to *East*. (13.) *Zones* are large Tracts of the Earth's Surface, lying parallel to the *Equator*, and encompassing the Globe like broad *Belts*; whence their Name. Of thefe there are three Kinds, viz. the *Torrid*, *Temperate*, and *Frigid Zones*. The *Torrid Zone* is one, and lieth between the two *Tropics*, and is divided by the *Equator*; it hath its Name from the Sun's going perpendicularly over it, and *feorching* or *terrifying* it with its Heat. The *Temperate Zones* are two, one on each

The Horizon.

The Equator.

The Meridian.

Degrees.

The Ecliptic.

The Tropics.

Polar Circles.

Latitude.

Parallels of Latitude.

Longitude.

Zones.

Torrid Zones.

Temperate Zones.

Frigid Zones.

Climates.

*Number of
Climates.*

each Side the *Equator*, being included between the *Tropics* and *Polar Circles*. In these the Sun's Heat and the Seasons are *temperate*. The *Frigid* or *Frozen Zones* are two also, the *North* and the *South*; they lie between the *Polar Circles* and the *Poles*, and encompass the *Poles* all around. In them the Seasons have the greatest Extremity of *Cold*, whence their Name. (14.) *Climates* are those Tracts of the Earth's Surface which run parallel to the *Equator*, and of such a Breadth from *North* to *South*, that the Length of the artificial Day in one surpasseth that in the next by *Half an Hour*. Of these *Climates* there are 24 on each Side the *Equator*, which reach to the *Polar Circles*; after which the *Climates* are reckon'd from the Difference of an *entire Month*, and are in Number *Six*; the Sun being seen in the first one whole Month without setting; in the second, two Months; in the third, three; and so on, as you see in the following Table.

A TABLE shewing the Parallel of Latitude, the Breadth, and the Length of Day in every Climate.

Climates.	Climates between the Equator and Polar Circles.												
	Pa. of Lat.		Breadth		Day.		Clim.	Pa. of Lat.		Breadth.		Day.	
	D.	M.	D.	M.	H.	M.		D.	M.	D.	M.	H.	M.
1	8	34	8	34	12	30	13	59	59	1	33	18	30
2	16	43	8	09	13	00	14	61	18	1	19	19	00
3	24	11	7	28	13	30	15	62	25	1	07	19	30
4	30	47	6	36	14	00	16	63	23	0	58	20	00
5	36	30	5	43	14	30	17	64	16	0	53	20	30
6	41	22	4	52	15	00	18	64	55	0	39	21	00
7	45	29	4	07	15	30	19	65	25	0	30	21	30
8	49	01	3	32	16	00	20	65	47	0	22	22	00
9	51	58	2	57	16	30	21	66	06	0	19	22	30
10	54	29	2	31	17	00	22	66	20	0	14	23	00
11	56	37	2	12	17	30	23	66	28	0	08	23	30
12	58	26	1	49	18	00	24	66	31	0	03	24	00
Climates between the Polar Circles and the Poles.													
1	67	31	1	00	1	Mont.	4	78	20	5	00	4	Mont.
2	69	31	2	00	2	Mont.	5	84	00	5	40	5	Mont.
3	73	21	3	50	3	Mont.	6	90	00	6	00	6	Mont.

THE Inhabitants of the Earth are variously denominated. First, according to the several *Meridians* and *Parallels* under which they live, they are call'd *Antæci*, *Periæci*, and *Antipodes*. Secondly, according to the Diversity of their Shadows they are term'd *Amphiscii*, *Periscii*, and *Heteroscii*, of which take the following Account.

THE *ANTOECI* are those People which live under the same *Meridian*, but opposite *Parallels*. They have (1.) the same *Elevation* of the *Pole*, but not the same *Pole*. (2.) They are equally distant from the *Equator*, but on different Sides. (3.) They have both *Noon* and *Midnight* at the same Time. (4.) The *Days* of the one are equal to the *Nights* of the other, and *vice versa*. (5.) Their *Seasons* of the Year

Of the various Denominations of the Inhabitants of the Globe.

The Antæci.

Year are *contrary*, it being *Winter* to one when *Summer* to the other.

The Periaeci.

THE *PERIOECI* are those who live under the same *Parallels*, but *different Meridians*. They have these Peculiarities: (1.) The same *Pole* is equally elevated or depressed to both. (2.) They are equally distant from the *Equator* on the same *Side*. (3.) When it is *Noon* to one, it is *Midnight* to the other. (4.) The *Days* of one are the *Complements* of the other's *Nights*, and *e contra*. (5.) They both agree in the four *Seasons* of the Year.

The Antipodes.

THE *ANTIPODES* are those People who live under *opposite Parallels and Meridians*. Peculiar to them are the following Particulars: (1.) Their *Footsteps* are diametrically opposite to each other's. (2.) They have both the same *Elevation* of different *Poles*. (3.) They are equally distant from the *Equator*, but on different *Sides*, and in opposite *Hemispheres*. (4.) When it is *Noon* with one, it is *Midnight* to the other, and *vice versa*. (5.) The *longest Day* or *Night* to one, is the *shortest* to the other. (6.) Their *Seasons* of the Year are *contrary*, &c.

The Amphiscii.

THE *AMPHISCII* were those People who inhabited the *Torrid Zone*; and were thus named because they cast their *Shadows* on both *Sides* of them, viz. *North* and *South*.

The Periscii.

THE *PERISCII* were those who lived in the *Frigid Zones*; so called because their *Shadows* fell all around them on every *Point* of the *Compass*.

The Heteroscii.

THE *HETEROSCII* were those who lived on the *Temperate Zones*; and were thus called because they cast their *Shadows* only *one Way*, viz. *North* in the *North Temperate*, and *South* in the *South Temperate Zone*.

A general View of the Four Great Continents, or Quarters of the World.

WE come now to exhibit a general View of the *Four Great Continents*, or *Quarters* of the *World*, as they are very improperly call'd, viz. *Europe*, *Asia*, *Africa*, and *America*, as they consist of *Nations* and *Kingdoms*, with the following Particulars, viz. (1.) The *Latitudes*; and (2.) The *Longitudes* between which each *Nation* lies, and may be found in the *Maps*. (3.) The *Length*; and (4.) The *Breadth* of each *Nation* in general in *English Miles*. (5.) The *Climates* thro' which they severally extend. (6.) The chief

chief City in each. (7.) The *Latitude*, and (8.) *Longitude* of the said City. All which here follow :

<i>The CONTINENT of EUROPE.</i>									
N ^o	Nations.	Lat.	Longit.	Len.	B rd th	Climate.	Chief City	Lat.	Longit.
1	Norway	57 00 72 00	22 00 50 00	1600	300	11. 12. 13. &c.	Bergen.	61 00	24 15
2	Sweden	56 00 69 00	32 00 55 00	660	780	9. 10. 11. 12.	Stockholm	59 26	39 05
3	Denmark	26 00 34 00	54 30 58 00	270	180	10. 11.	Copen- hagen	56 13	32 30
4	Muscovy	45 10 71 00	46 00 105 00	1630	1500	8. 9. 10. 11. 12. 13.	Moscow	55 25	63 00
5	Germany	45 30 54 30	24 10 37 12	540	510	7. 8. 9. 10.	Vienna	48 14	37 05
6	Poland	48 00 58 20	34 30 53 30	780	600	9. 10. 11.	Cracow	49 56	40 47
7	France	42 30 51 10	12 10 26 30	520	450	6. 7. 8.	Paris	48 45	21 30
8	Spain	36 15 44 30	8 5 21 30	620	480	5. 6. 7.	Madrid	40 25	13 40
9	Italy	38 15 46 30	25 30 39 00	760	134	6. 7.	Rome	41 51	34 20
10	Turkey in EUROPE	36 30 49 20	36 00 53 00	770	660	5. 6. 7. 8.	Constan- tinople	43 00	54 20

The CONTINENT of ASIA.

N ^o	Nations.	Lat.	Longit.	Len.	Br ^{dth}	Climate.	Chief City	Lat.	Longit.
1	Tartary	37 30 74 04	77 10 163 00	3000	2250	6 to 27	Cambalu	* * * *	
2	China	20 30 41 10	118 00 141 00	1380	1260	3. 4. 5. 6.	Pecking	39 40	133 36
3	India	08 12 40 00	92 00 131 00	1680	1690	2. 3. 4. 5. 6.	Agra	26 30	98 20
4	Persia	25 40 44 30	70 30 97 00	1440	1260	4. 5. 6. 7.	Ispahan	31 45	69 30
5	Natolia	35 00 44 00	48 00 68 00	720	400	6. 7.	Bursa	41 49	57 30
6	Arabia	12 00 34 00	53 00 80 00	1380	1080	2. 3. 4. 5.	Medina	24 50	59 10
7	Syria	33 30 38 30	61 00 68 30	560	200	5. 6.	Aleppo	36 10	56 30
8	Euphrat. Provinces.	* *	* *	*	*	*	Bagdat	33 30	62 30

The CONTINENT of *AFRICA*.

N ^o .	Nations.	Lat.	Longit.	Len.	Br ^{dth}	Climate.	Chief City	Lat.	Longit.
1	<i>Egypt</i>	21 10 30 00	52 06 62 40	650	310	3. 4.	<i>Cairo</i>	29 40	51 30
2	<i>Barbary</i>	24 40 35 00	04 16 52 10	2300	380	4. 5.	<i>Fez</i>	33 30	14 00
3	<i>Bildul- gerid</i>	22 30 32 40	02 00 55 00	2040	300	4. 5.	<i>Dara</i>	27 00	08 42
4	<i>Zaara</i>	21 00 28 00	02 00 50 00	2340	330	3. 4.	<i>Tegassa</i>	21 51	06 00
5	<i>Negroland</i>	10 00 23 10	00 10 46 20	2280	600	2. 3.	<i>Tombut</i>	14 50	08 30
6	<i>Guinea</i>	04 10 11 40	03 00 30 00	1320	360	1. 2.	<i>Benin</i>	07 30	05 05
7	<i>Nubia</i>	09 30 23 00	42 00 57 00	840	570	2. 3.	<i>Dancala</i>	17 30	52 00
8	<i>Ethiop.</i> { <i>Inf.</i> <i>Sup.</i>	9 N. 00 35 S. 00	35 00 45 00	2640	900	1 N. to 5 S.	<i>Monomo- tapa</i>	25 45	39 00
9		24 S. 00 18 N. 00	45 00 69 00	1200	750	3 N. to 3 S.			

The CONTINENT of AMERICA.

N ^o	Nations.	Lat.	Longit.	Len.	Breadth	Climates.	Chief City	Lat.	Longit.
		° / ' / "	° / ' / "					° / ' / "	° / ' / "
1	Mexico	8 50 30 00	259 00 297 00	2520	480	2. 3. 4.	Mexico	19 00	270 00
2	Granada	27 00 40 00		1140	780	5. 6.	Sta Fee	36 00	260 00
3	Florida	26 50 40 00	276 00 297 00	1000	600	5. 6.	Coca		
4	Terra Canadensis	30 00 62 00	290 00 320 00	1500	1920	5 to 15.	Boston.	42 40	310 00
5	Terra Firma	3 20 11 30	297 30 330 00	1260	480	1 ½	Sta Fee de Bagota	3 30	
6	Peru	25 30 1 00	390 30 307 10	1440	480	1. 2. 3.	Lima	12 20	
7	Land of the Amazons	2N. 00 17S. 00							
8	Brasil	1 00 23 00	322 00 346 30	1600	1380	1. 2. 3.	SSalvador	12 20	
9	Chili	25 30 44 00	392 00 306 00	960	480	4. 5. 6.	S ^t Jago	34 00	
10	Paraguay	12 00 37 00	307 10 337 40	1560	1500	2. 3. 4. 5.	Affump- tion.	25 30	

IN this *Synopsis* of the Four Continents, I have express'd only the greater Parts of which they consist, and which are inhabited and known to us; whence some considerable Tracts in *America*, as *Terra Arctica*, *Antarctica*, *Magellanica*, &c. are here pass'd by, as not coming under the Conditions of such a View. I shall now exhibit another *Synopsis* of all the lesser Kingdoms, Principalities, States, Dutchies, Circles, Provinces, and Countries comprehended under those larger Heads, and into which they are divided; together with the Metropolis or chief City in each Province, and the Latitude and Longitude thereof.

The Subdivisions of the Continents of EUROPE.

NORWAY is divided into
Five Governments.

Chief City. Lat. Longit.

<i>Babus</i> — — — — —	<i>Babus</i>	58	14	31	40
<i>Aggerhus</i> — — — — —	<i>Anflo</i>	60	30	29	00
<i>Bergen</i> — — — — —	<i>Bergen</i>	61	00	24	15
<i>Drontheim</i> — — — — —	<i>Drontheim</i>	65	24	30	35
<i>Wardhus</i> — — — — —	<i>Wardhus</i>	70	45	52	00

S W E D E N comprehends Seven Countries.

<i>Sweden proper</i> — — — — —	<i>Stockholm</i>	59	26	39	05
<i>Gothland</i> — — — — —	<i>Calmar</i>	57	06	36	32
<i>Schonen</i> — — — — —	<i>Lunden</i>	56	44	33	22
<i>Lapland</i> — — — — —	<i>Torneo</i>	66	03	44	00
<i>Finland</i> — — — — —	<i>Abo</i>	60	23	43	33
<i>Ingria</i> — — — — —	<i>Notteburg</i>	59	52	34	00
<i>Livonia</i> — — — — —	<i>Riga</i>	56	54	45	34

D E N M A R K contains

The Peninsula of <i>Jutland</i> , comprehending	{ North <i>Jutland</i> ,	<i>Wiborg</i>	56	47	28	52
	{ South <i>Jutland</i> ,	<i>Sleswick</i>	55	57	29	24
The Isles of —	{ <i>Zeeland</i> — — — — —	<i>Copenhagen</i>	56	13	32	30
	{ <i>Funen</i> — — — — —	<i>Odenfee</i>	55	52	30	10
And other small ones.						

M U S C O V Y or *R U S S I A* contains

Chief Southern Provinces,	{ <i>Smolensko</i> — — — — —	<i>Smolensko</i>	54	31	55	42
	{ <i>Novograd Sewerski</i> — — — — —	<i>Novog. Sew.</i>	57	16	56	24
	{ <i>Czernikow</i> — — — — —	<i>Czernikow</i>	51	48	55	00
	{ <i>Ukrain</i> — — — — —	<i>Kiow</i>	50	42	53	20
	{ <i>Worotin</i> — — — — —	<i>Worotin</i>	54	10	62	00
	{ <i>Resan</i> — — — — —	<i>Resan</i>	54	30	65	05
	{ <i>Moscow</i> — — — — —	<i>Moscow</i>	55	25	63	00
	{ <i>Twer</i> — — — — —	<i>Twer</i>	56	35	60	20
	{ <i>Rosthow</i> — — — — —	<i>Rosthow</i>	67	10	63	25
	{ <i>Jaraslow</i> — — — — —	<i>Jaraslow</i>	57	35	63	30
	{ <i>Susdal</i> — — — — —	<i>Susdal</i>	56	35	62	25
	{ <i>Wolodimer</i> — — — — —	<i>Wolodimer</i>	51	00	67	10

Muscov. Tartary	Chief Northern Provinces	Muscov. Lapland —————	Kola	69	25	56	30
		Kargapol —————	Kargapol	61	25	64	10
		Dwina —————	Archangel	64	50	65	10
		Condora —————	Wirgatoria				
		Obdora —————	Beresof				
		Permski —————	Perma-Weliki	62	34	81	40
		Nisi-Novogrod —————	Nisi-Novog.	58	00	69	25
		Wologda —————	Wologda	59	05	65	10
		Novogrod-Weliki —————	Novog. Weliki	58	10	55	18
		Pleskow —————	Pleskow	57	25	50	30
		Samoieda —————					
		Siberia —————	Tobalsko	58	15	81	50
		Dauri —————	Nerzinskoy	53	00		
		Kamsatka —————					
		Bulgaria —————	Bulgar				
		Astracan —————	Astracan	17	00		

GERMANY is divided into Ten Circles.

Belgium	Holland —————	Amsterdam	52	29	24	00
	Flanders —————	Bruxelles	50	54	23	36
	Westphalia —————	Munster	52	00	27	12
	Lower Saxony —————	Hamburg	53	57	29	20
	Upper Saxony —————	Wittenburg	51	54	33	02
	Lower Rhine —————	Heidelberg	49	17	28	27
	Upper Rhine —————	Francfort	50	03	28	12
	Franconia —————	Nuremburg	49	24	31	11
	Suabia —————	Ausburg	48	14	37	57
	Bavaria —————	Munick	47	58	31	36
	Austria —————	Vienna	48	14	37	05

POLAND contains the following Provinces, &c.

The Dukedom of Lithuania	Wilna	54	31	47	14
The Province of Volhinia —————	Kiou	50	42	53	20
The Province of Podolia —————	Caminieck	48	50	47	46
The Dukedom of Curland —————	Mittaw	57	00	44	00
The Dukedom of Samogitia —————	Rosnie	55	15	44	48
The Province of Polaquia —————	Bielha	55	36	56	35
The Province of Little Russia —————	Lemberg	49	36	45	00
The Kingdom of Prussia —————	Dantzick	54	13	40	42
The Dukedom of Warsawia —————	Warsaw	52	07	42	05
Proper Polonia —————	Cracow	49	56	40	47

FRANCE

FRANCE contains Twelve Governments.

<i>Picardy</i> — — — —	<i>Amiens</i>	49	54	21	26
<i>Normandy</i> — — — —	<i>Rouen</i>	49	26	20	02
<i>Ile of France</i> — — — —	<i>Paris</i>	48	45	21	30
<i>Champagne</i> — — — —	<i>Troyes</i>	48	07	23	17
<i>Britanny</i> — — — —	<i>Rennes</i>	48	03	16	30
<i>Orleanois</i> — — — —	<i>Orleans</i>	47	44	20	42
<i>Burgundy</i> — — — —	<i>Dijon</i>	43	37	24	05
<i>Lionois</i> — — — —	<i>Lions</i>	45	24	24	08
<i>Guienne and Gascony</i> — —	<i>Bordeaux</i>	44	50	17	50
<i>Languedoc</i> — — — —	<i>Thoulouse</i>	43	29	19	48
<i>Dauphiné</i> — — — —	<i>Grenoble</i>	44	54	25	04
<i>Provence</i> — — — —	<i>Aix</i>	43	04	24	40

SPAIN with PORTUGAL contains

The Lordship of * <i>Biscay</i> —	<i>Bilboa</i>	43	47	14	22
The Principality of * <i>Asturia</i>	<i>Oviedo</i>	43	23	11	05
The Kingdom of <i>Gallicia</i> —	<i>Compostella</i>	43	00	08	16
The Kingdom of * <i>Portugal</i>	<i>Lisbon</i>	38	45	07	37
The Kingdom of * <i>Algarve</i>	<i>Tavira</i>	37	00	09	14
The Province of <i>Andalusia</i> —	<i>Seville</i>	37	30	11	14
The Kingdom of <i>Granada</i> —	<i>Granada</i>	37	28	13	55
The Kingdom of <i>Murcia</i> —	<i>Murcia</i>	38	04	16	34
The Kingdom of <i>Valencia</i> —	<i>Valence</i>	39	25	17	15
The Principality of * <i>Catalonia</i>	<i>Barcelona</i>	40	34	20	33
The Kingdom of <i>Arragon</i> —	<i>Saragossa</i>	41	35	17	00
The Kingdom of <i>Navarre</i> —	<i>Pampelona</i>	42	52	16	06
The Province of <i>Old Castile</i>	<i>Burgos</i>	46	55	21	14
The Province of <i>New Castile</i>	<i>Madrid</i>	40	25	13	40
The Kingdom of <i>Leon</i> — —	<i>Leon</i>	42	44	11	08

ITALY contains the Dominions of

The Church, or <i>Peter's Patri.</i>	<i>Rome</i>	41	51	34	20
The Kingdom of <i>Naples</i> —	<i>Naples</i>	40	56	36	15
The Dutchy of <i>Milan</i> — —	<i>Milan</i>	44	55	29	13
The Republic of <i>Venice</i> — —	<i>Venice</i>	45	20	34	04
The Dukedom of <i>Savoy</i> — —	<i>Chambery</i>	45	04	25	24
The Principality of <i>Piedmont</i>	<i>Turin</i>	44	34	27	26
The Dukedom of <i>Tuscany</i> —	<i>Florence</i>	43	20	32	10
The Republic of <i>Genoa</i> — —	<i>Genoa</i>	43	53	29	00
The Dukedom of <i>Mantua</i>	<i>Mantua</i>	44	52	31	10
The Dukedom of <i>Montferrat</i>	<i>Casale</i>	44	40	28	17
The Dukedom of <i>Modena</i> —	<i>Modena</i>	44	14	31	32

The

The Dominions mark'd with (*) belong to the King of Portugal.

The Dukedom of <i>Reggio</i> — — — —	<i>Reggio</i>	44	18	31	04
The Dukedom of <i>Parma</i> — — — —	<i>Parma</i>	44	24	30	40
The Dukedom of <i>Placentia</i> — — — —	<i>Placenza</i>	39	48	11	50
The Dukedom of <i>Massa</i> — — — —	<i>Massa</i>	43	24	30	36
The Dukedom of <i>Mirandola</i> — — — —	<i>Mirandola</i>	44	35	31	38
The Republic of <i>Lucca</i> — — — —	<i>Lucca</i>	43	13	31	38
The Bishoprick of <i>Trent</i> — — — —	<i>Trent</i>	45	48	31	24

TURKEY in EUROPE comprehends

* <i>Hungary</i> — — — —	<i>Buda</i>	47	38	40	15
<i>Transilvania</i> — — — —	<i>Hermanstat</i>	46	46	45	48
<i>Walachia</i> — — — —	<i>Targovisco</i>	45	54	47	38
<i>Moldavia</i> — — — —	<i>Soczow</i>	47	44	48	30
<i>Little Tartary</i> — — — —	<i>Kassa</i>	47	20	61	21
<i>Romania</i> — — — —	<i>Constantinople</i>	43	00	54	20
<i>Bulgaria</i> — — — —	<i>Sophia</i>	43	25	47	12
<i>Servia</i> — — — —	<i>Belgrade</i>	45	20	42	34
<i>Bosnia</i> — — — —	<i>Saraio</i>	44	54	40	30
<i>Sclavonia</i> — — — —	<i>Posega</i>	45	46	39	42
<i>Croatia</i> — — — —	<i>Wibitz</i>	45	18	37	44
<i>Dalmatia</i> — — — —	<i>Spalatro</i>	44	00	38	50
<i>Greece</i> — — — —	† <i>Salonichi</i>	41	37	47	00

I SHALL now give a short Account of the *Air*, *Soil*, *Manners* of the People, *Religion*, *Universities*, *Language*, *Commodities*, &c. of the several Countries on the *European Continent*; for their several Governments, I shall refer the Reader to the Title of *History*.

Of Norway. IN *NORWAY* the *Air* is intensely cold, and the Mountains always cover'd with Snow. Most of the Country is nothing but *Rocks*, *Mountains*, and *Woods*. Their Trade lies in *Fish*, *Furs*, *Train-Oil*, *Pitch*, *Masts*, *Deals*, *Cables*, *Copper*, *Hides*, *Cheese*, &c. The People are hardy, laborious, strong, and courageous, plain in their Temper, just in their Dealings, and civil to Strangers. Their Religion is *Lutheranism*, and in some Parts *Popery*. Here are three *Bishopricks*; and their *Language* is various, *Iselandic*, *Teutonic*, *High-German*, and *French*.

SWEDEN

* The greatest Part of *Hungary* now belongs to the Emperor of Germany. † The ancient *Theſſalonica*.

SWEDEN enjoys a clear, dry, cold, yet pure *Of Sweden* and very wholesome Air. Their *Seasons* are altogether *Winter* or *Summer*. The Mid-land Country is indifferent fertile, and they have some fruitful Valleys. The *Swedes* are naturally strong and vigorous; grave and reserv'd; yet idle, invidious, and self-opinionated. Their Women are fair and witty. Their *Trade* lies in Metals, Ox-Hides, Furs, Pitch, Tar, Rosin, Tallow, Honey, Masts, Deals, Oak, &c. Their *Religion* is *Lutheranism* and *Popery*. They have eight Bishopricks, and two Universities. Their Language is a Dialect of the *Teutonic*; the Gentry speak *High-Dutch* and *French* in Perfection.

IN *DENMARK* the Air is also cold, but *Of Denmark* sweet and wholesome in the Country. Here likewise are but two Seasons, *Summer* and *Winter*. The Soil is pretty fertile in Corn, Fruit, and Vegetables. The *Danes* are tall, stait and handsome; but mean-spirited, cheating, and mistrustful, subject to Apoplexies and Epilepsies. Their Trade is in Fish, Furs, Skins, Deals, Masts, Armour, Pitch, Tar, Oil, Iron, &c. They are generally *Lutherans*, but some Papists. They have two Universities and five Bishopricks. Their Language is *Teutonic*, *High-Dutch*, and *French*.

MUSCOVY is very hot, temperate, or very *Of Muscovy* cold, according to the Situation of its Parts from *South* to *North*. The Soil is also very different, but, in general, is overgrown with Woods and Forests; they have some marshy Plains, and good Corn-land towards the *South*. The People are of a very healthful Constitution, and long-lived; robust, and strong-built, but not tall; cruel, ignorant, yet very conceited. Their Commodities are Furs, Fish, Potashes, Hemp, Soap, Honey, *Russia* Leather, Elk Hides, Tallow, Wax, Train-Oil, Caviere, Slad, Iron, &c. Their *Religion* is according to the *Greek Church*, in general. Their Language is near a-kin to the *Sclavonian* and *Polish*.

GERMANY likewise being of so great an Ex- *Of Germany* tent from *North* to *South*, hath a different Temperature of Air in its several Parts. The Soil is generally rugged, and either fill'd with Lakes and Marshes, or cover'd with extensive Woods; in some

Places there is very good Corn and Pasturage Land. The *Germans* are reckon'd luxurious, hospitable, valorous, and patient of Labour; remarkable for Integrity, and hating Flattery and Diffimulation. They export various Metals, Allom, Flefh, Quick-silver, Armoury, &c. They profess Popery in general; though there are many *Lutherans* and *Calvinists* among them. In this great Empire are thirty-six Universities and fifty-six Bishopricks. They speak the High and Low *Dutch* and *Walloon* Languages.

Of Poland.

POLAND is situated in the temperate Zone, but yet has great Extremity of Cold to the North. The *Soil* for the most part is champain and open, in some Places it has great Woods and Forests, and some considerable Mountains, Lakes, and Marshes. The *Poles* are fair, largely made, of yellow Hair; are civil, affable, brave, sincere, and jealous of their Honour and Liberty, and exceed most *Europeans* for Vivacity of Spirit, Strength of Body, and long Life. Their *Trade* lies in Honey, Wax, Amber, Rosin, Furs, Oak, Wainscot, Masts, Deals, Salt-Petre, Cordage, Pot-Ashes, Opium, Vitriol, *Lapis Lazuli*, Metals, &c. They are generally bigotted *Papists*, some Part *Lutherans* and *Calvinists*. They have four Universities and fourteen Bishopricks. Their Language is a Dialect of the *Sclavonic*.

Of France.

FRANCE is for the most part very temperate, and rather too warm than cold. The *Soil* produces every thing necessary for the Use of Man. The *French* are remarkable for Levity of Temper, they are generous, prodigal, sprightly, daring, yet faint-hearted; they have good Heads for Invention, and are docible in learning Arts and Sciences. The Commodities of this Country are many, as Corn, Flax, Wool, Salt, Fish, Wines, Coral, Skins, Alamodes, Silks, Linen, Iron, &c. Their *Religion* is Popery; they have twenty Universities, eighteen Archbishopricks, and a hundred and nine Bishopricks. The Language is a Compound from the antient *Gallic*, *German*, and *Latin* Tongues.

Of Spain:

SPAIN and *PORTUGAL* have generally a very pure and calm Air, but extremely hot in Summer. The *Soil* is in many Places dry, barren, and abounding in Woods and Mountains; in others productive

ductive of rich Fruit and Wines. The People are soft, lascivious, jealous, yet impotent in regard of Venery; grave, devout, and zealous in religious Matters; cruel towards *religious*, but merciful towards *civil* Offenders: Their Trade is in Honey, Sugar, Oil, Metals, Wines, Rice, Raisins, Oranges, Lemons, Almonds, Cork, Marble, Salt, &c. They are the most zealous Papists. *Spain* hath eight Archbishopricks, forty-two Bishopricks, and twenty Universities. *Portugal* has three Archbishopricks, nine Bishopricks, and three Universities. The *Spanish* Language is derived from the antient *Latin*; and the *Portuguese* from the *French* and *Spanish*, especially the latter.

ITALY is said to enjoy an healthful and temperate Air, except in the *Land of the Church*, where 'tis thick and dangerous. The *Soil* is naturally very fertile, and produces the finest of Corn, Wines, and Fruits. The Woods are here continually green, and the Mountains and Vales most pleasant in their kinds. *Italy* has been call'd the *Garden of Europe*. The *Italians* are of a middle Stature, tender, cunning, polite, complaisant, eloquent, and affect Praise and Pomp of every sort; are given to Dissimulation, Jealousy and Revenge, and are the most bigotted Devotees in the World. Their chief *Commodities* are Wines, Corn, Rice, Silks, Velvets, Satins, Grograms, Fustians, Allom, Minerals, Metals, precious Stones, Coral, &c. Their Religion is *Poper*y in the grossest Degree. Besides the Poppedom, there are two Patriarchates, thirty-four Archbishopricks, above two hundred and thirty Bishopricks, and sixteen Universities. Their Language is the old *Latin* mix'd with that of the *Goths* and *Vandals*. Of Italy.

HUNGARY is said to have a very unwholesome Air to breathe in, on account of the moorish Ground, and Lakes. The *Soil* is fruitful in Corn, Roots, and Fruits; and affords excellent Pasturage. The *Hungarians* are more addicted to Wars than Arts; are strong, well made, valiant and daring, but cruel and insulting to Captives. The *Commodities* are Copper, Iron, Quicksilver, Antimony, Salt, and the various Produce of the Soil. They are generally *Papists*, but here are also *Lutherans*, *Calvinists*, *Jews*, and Of Hungary.

Mahometans. Here are two Archbishopsricks, six Bishopsricks; and the *Language* they speak is peculiar to themselves.

Of Crim-Tartary.

LITTLE TARTARY is allow'd to have a temperate Air, but yet unhealthful to breathe in. The *Soil* is very different, abounding here with Grain and Fruit, and there with Marshes and barren Mountains. The *Crim-Tartars* are of vigorous and robust Bodies, patient of Hardships, good Soldiers, just to each other, but not to Strangers. Their *Food* is Horse-Flesh, and Mare's-Milk. Their *Commodities* are *Slaves*, Leather, Skins, Furs, &c. Their *Religion* is *Mahometanism*, though *Christians* of various Sorts are intermixed with them. Here are two Bishopsricks. Their *Language* is the *Scythian*, or pure *Tataresque*.

Of Greece.

GREECE and the other *PROVINCES* of *Turkey* in *Europe*, have, in general, an happy Situation, and enjoy a pure and temperate Air. The *Soil* is very fertile in most Parts, and affords all the Necessaries of Life. The *Turks* are Men of a swarthy *Complexion*, robust *Bodies*, of a good *Stature*, of great *Integrity*, civil, charitable, and zealous of their Religion; yet are addicted to some detestable Vices not to be named among *Christians*. Their *Commodities* are Raw Silks, *Pernocochi*, Oil, *Turkey* Leather, Cake Soap, Honey, Galls, Cottons, Ani-seed, Carpets, Mohair, Camblets, Grograms, and other rich *Turkish* Commodities. The establish'd Religion of these Provinces is *Mahometanism*; but here are many *Jews* and *Christians*, who have a *Patriarch* at *Constantinople*, and several Archbishopsricks and Bishopsricks. In *Greece* the *Language* used by the *Christians* is the *Vulgar Greek*, and that used by the *Turks* here and in other Parts is the *Turkish*, which is (originally) the *Sclavonian* with some Alterations.

On the CONTINENT of ASIA.

Of Tartary.

TARTARY (which alone is much larger than all *Europe*) is divided into five great Parts, viz. *Zagathay*, *Cathay*, *Turquestan*, *Tartary proper*, and *Tartary*

tary desert. The *Air* is very different in different Parts. The *Soil*, for the greatest part, is very barren, being every where incumber'd with unwholesome Marshes, and uninhabited Mountains and Desarts. The *Tartars* are swarthy, strong, middle-sized, have broad Faces, hollow Eyes, thin Beards, thick Lips, flat Noses, and an ugly Mien. They are rude and barbarous, stroll about in Tents, living on Rapine, eating the Flesh and drinking the Blood of their Enemies. Their Trade is in Sable, Martins, Silks, Camblets, Flax, Musk, Cinnamon, Rhubarb, &c. They are generally *Pagans*, though here are some *Mahometans*, *Jews*, and *Christians*. Their Language has some Affinity with that of the *Crim-Tartars* and the *Turkish* Language.

CHINA is divided into seventeen Provinces, viz. Of China.
Leaotung, *Corea*, *Xantung*, *Peking*, *Xansi*, *Honan*, *Xensi*, *Nanking*, *Chekiam*, *Kiamsi*, *Fokien*, *Hunquam*, *Canton*, *Quamsi*, *Queicheu*, *Yunnan*, *Suchuen*. The *Air* is temperate, except towards the *North*, where 'tis sometimes excessive cold. The *Soil* is generally very rich and fertile, insomuch that they have two or three Harvests in a Year; it abounds with Corn, Wine, and all kinds of Fruit. The *Chinese* are for the most part fair, short-nosed, black-eyed, and of very thin Beards. They are esteem'd ingenious, and Lovers of Sciences, but intolerably conceited. The *Commodities* of *China* are Gold, Silver, precious Stones, Quick-silver, Porcelane Dishes, Silk, Cottons, Rhubarb, Sugar, Camphire, Musk, Ginger, China-Wood and Ware, &c. The *Chinese* are gross *Idolaters*; here are also *Mahometans* and *Christians*. Their Language has no Likeness to any other in Nature, Pronunciation, or way of Writing.

INDIA has a threefold Division, viz. Of India.
(1.) *Indo-stan* or *Empire* of the *Great Mogul*, containing the Kingdoms of *Delli*, *Agra*, *Cambaia*, *Bengala*, &c.
(2.) The Peninsula within the *Ganges*, containing *Malabar*, *Decan*, *Golcond*, *Bisnagar* and *Coromandel*.
(3.) The Peninsula without the *Ganges*, containing the Kingdoms of *Malacca*, *Siam*, *Martaban*, *Cambodia*, *Cochinchina*, *Pegu*, *Arracan*, *Ava*, *Tonquin*, *Laos*. These Kingdoms lie in the *Torrid Zone* for the most part, and therefore must needs be very hot; but the

Soil is generally very rich and plentiful in all kinds of Fruits and various Grain. The *Indians* are very different in their Manners and Customs in so great an Empire; they are tall, strong, and almost black; ingenious in Arts, civil of Behaviour, and pretty just in their Dealings. Their *Commodities* are Aloes, Musk, Rhubarb, Civets, Indigo, Laique, Gums, Amber, Minerals, Metals, Spices, rich Manufactures of Silk, Cotton, &c. and most sorts of Drugs. The Inhabitants are gross Idolaters, their Languages are very numerous and different, and of which we know but very little.

Of Persia.

PERSIA contains thirteen Provinces, *Sinda*, *Macran*, *Sigestan*, *Sablestan*, *Chorostan*, *Estarabad*, on the East; *Tabristan*, *Chirwan*, *Adirbeitzan*, *Iraca-Agemi*, on the North; and *Chusistan*, *Faristan*, *Kerman*, on the South. The Air is temperate towards the North, but very hot in the Summer towards the South. The *Soil* is also different, being barren in the Northern Parts, but exceeding fertile and pleasant on the South of Mount *Taurus*, producing all kinds of Corn, Fruits, and Wines. The *Persians* are naturally great Dissemblers, Flatterers, and Swearers; proud, passionate, and revengeful; given to Pastimes; but yet are said to be just and honest in their Dealings, and civil to Strangers. Their *Commodities* are rich Silks, Carpets, Tissues, Gold, Silver, Seal-Skins, Goat-Skins, Alabaster, Metals, Myrrh, Fruits, &c. The Religion is *Mahometanism*, with some Difference from the *Turks*. Their Language has a great Tincture of the *Arabic*, and is esteemed the modish Tongue of *Asia*.

Of Natolia.

NATOLIA (formerly call'd *Asia Minor*) is now divided into four Provinces, viz. *Natolia* proper, *Amasia*, *Caramania*, and *Aladulia*. The Air of *Natolia* is in some Places pure and healthful, in others extremely gross and pestilentious. The *Soil* is extraordinary fertile, but lies too much uncultivated. The Inhabitants of this large Country are chiefly *Turks* and *Greeks*; their *Commodities* are Raw Silks, Goats Hair, Cotton, Cordovans, Calicuts white and blue, Wool, Tapestries, Soap, and divers sorts of Drugs. The established Religion is *Mahometanism*; but here are many *Christians* of the *Greek Church*, as

well as others. The prevailing Languages in these Countries are the *Turkish* and *Vulgar Greek*.

ARABIA is divided into three great Parts, viz. *Of Arabia.*
Beriar, or *Arabia Desert*; *Baraab*, or *Arabia Petraea*; and *Ayman*, or *Arabia Felix*. The *Air* of this Country is very hot, as being in part in the torrid Zone; and the *Soil* is indicated by the Names *Desert*, *Petraea* or *Stony*, and *Felix* or *Happy*; one Part being over-spread with Mountains of Sand, the other of Rocks, and the latter is exceeding fertile in most Places. The *Commodities* here are Coral, Pearl, Onyx-stones, Balm, Myrrh, Incense, Gums, Cassia, Manna, and several other Drugs and Spices. The *Arabians* are now an ignorant, treacherous and barbarous sort of People, most of them idle Vagabonds and Robbers; but those of *Arabia Felix* are said to be civil and honest in their Deportment to all Persons. Their *Religion* is the Imposture of *Mahomet*, who was a Native of this Country. Their Language, (viz. the *Arabic*) I have already described; it is now very corruptly spoken among the *Arabs*, and many other People thereabouts.

SYRIA comprehends the three Districts of *Syria* *Of Syria.*
proper, *Phœnicia* and *Palestine*. The *Air* is here pure and serene, and very wholesome to breathe in, but very warm in Summer. The *Soil* is here exceeding kind, fat, and fertile in most Places, abounding with large and pleasant Plains. The *Inhabitants* are chiefly *Turks* and *Greeks*, with many *Jews* and *Armenians*. The *Trade* of *Aleppo* consists in Silks, Camblets, Gall-Nuts, Cotton, Mohair, Soap, Galls, Jewels, Spices, Drugs of all Sorts, &c. The *Religions* here are *Mahometanism* established, *Christianity* and *Judaism* allow'd, as being the Country which antiently gave Rise to both. The *Language* of the Country is the *Turkish*; the *Europeans* residing here speak the *Lingua Franca*.

DIARBECK, *TURCOMANIA* and *Of the Eu-*
GEORGIA, make the remaining Part of *Turkey* *phratian Prov-*
in Asia. These Provinces lie between the *Euxine* and *vinces.*
Caspian Seas, and on the River *Euphrates*. The *Air* is temperate, pleasant and healthful in general. The *Soil* affords excellent Pasturage on the Banks of *Tigris* and *Euphrates*, and in other Places Variety of Fruits and

and Grain: The People are of different Manners and Tempers in the different Provinces; they export or barter with their Neighbours, Pitch, Fruits, Silk and such like Commodities. The prevailing Religion is that of the *Armenians*. The *Christians* in *Asia* have three *Patriarchs*, viz. of *Jerusalem*, *Alexandria*, and *Antioch*; besides two *Armenians*, and one *Nestorian* at *Mosul* in *Diarbeck*. These have under them various Archbishops and Bishops; but notwithstanding this, Christianity here is in a pitiful Plight, groaning under the *Turkish* Yoke, and distracted with various Sects and Heresies, as *Armenians*, *Jacobites*, *Maronites*, *Nestorians*, *Melchites*, &c.

On the CONTINENT of AFRICA.

Of Egypt.

EGYPT is divided into four Parts, viz. *Erise*, or *Lower Egypt*; *Bechira*, or *Middle Egypt*; *Salrid*, or *Upper Egypt*; and the Coasts of the *Red Sea*. The Air is extremely hot, and esteem'd very unwholesome, being infested with noxious Vapours from the fat and slimy Soil of the Earth, which is occasion'd by the overflowing of the *Nile*, and which is thereby render'd exceeding fertile and plentiful of all sorts of Grain. The *Egyptians* are of a low Stature, are tawny and spare; they are reputed great Cowards, luxurious, cunning, cruel, and treacherous; and much addicted to Divination. The Commodities are Sugar, Flax, Rice, Corn, Fruits, Linnen Cloth, Salt, Balsam, Senna, Cassia, and other Drugs. The Religions here are *Mahometanism*, *Christianity* and *Judaism*; but mostly the former. The common Languages are the vulgar *Arabic* and *Turkish*; but the *Cophti Christians* still retain the antient *Egyptian* Tongue, especially in their religious Rites.

Of Barbary.

BARBARY contains six Kingdoms, viz. *Marocco*, *Fez*, *Algiers*, *Tunis*, *Tripoli* and *Barca*. The Air is pretty temperate and healthful to breathe in. The Soil is fertile in Corn and Fruits, though it abounds in Woods and Mountains. The *Barbarians* are said to be inconstant, crafty, unfaithful, active of Body, impatient of Labour, and covetous of Honour. Some are addicted to Learning, others to Merchandize,

dize, and many to Piracy. The chief *Commodities* are Honey, Wax, Oil, Sugar, Flax, Hemp, Hides, Cordevants, Dates, Almonds, Mantles, &c. The establish'd Religion is *Mahometanism*, and their Language in most Places is the *Arabesque*, and old *African* Tongue, or a corrupt Dialect thereof.

BILDULGERID contains eight Provinces, *Of Bildulgerid.*
viz. *Barca Desert*, *Bildulgerid Proper*, *Zeb*, *Tegorarin*, *Segelmese*, *Tafilet*, *Darba*, *Teffet*. The Air is very hot, yet very wholesome to breathe. The Soil is generally barren and sandy; but here are low Valleys of Corn and abundance of Dates. The *Inhabitants*, besides the Natives, are chiefly *Arabs*, who follow their Trade of Robbing, &c. The *Commodities* of this Country are few, chiefly Corn, Cattle, Dates, and Indigo. They who know any thing of Religion profess the Doctrine of *Mahomet*; the Language of the Natives is little known, the *Arabs* use their own.

Z A A R A, or the *Desert*, contains seven Provinces, *Of Zaara.*
viz. *Zanhaga*, *Zuenziga*, *Targa*, *Lempta*, *Berdoa*, *Borno*, *Goaga*. The Air is exceeding hot, but very wholesome to breathe in. The Soil is dry and sandy, and so barren that it is difficult to live or travel here. As for the *People*, their *Commodities*, *Religion* and *Language* of this Country, they are much the same with those of *Bildulgerid*, but more wretched of the two.

NEGROLAND comprehends the Kingdoms *Of Negro-*
or Provinces of *Biafar*, *Melli*, *Mandinga*, *Gago*, *Guland.*
ber, *Zegzeg*, *Zanfara*, *Gangara*, *Cassena*, *Cano*, *Agades*, *Tombut*, *Gualata*, *Genehoa*; with the People of *Jallosi*, *Casanga* and *Bijago*. This Country being wholly within the *Torrid Zone*, the Air is very hot, yet very healthful; and the Soil very rich and fertile in Corn, Herbs and Metals. The *Negroes* are a People of a black Complexion, very ignorant, rude and barbarous, addicted to Luxury and beastly Pleasures. Their *Commodities* are Ostrich-Feathers, Gums, Amber, Gold, Red-wood, Civet, Elephant's Teeth, &c. The Natives are gross Idolaters; and others *Mahometans*. The Languages of this great Country are various, and little known to us.

GUINEA is divided into three great Parts, viz. *Of Guinea.*
(1.) The Kingdom of *Benin*. (2.) *Guinea Proper*,
con-

containing the Ivory Coast, *Quaqua* Coast, and Gold Coast. (3.) The Coasts of *Maleguette*. The Air of this Country is extremely hot, and very unwholesome to Strangers. The *Soil* is very fertile, and produces the choicest of Grains and Fruit. The Natives are of the blackest Complexion, go naked generally, and are mostly a cheating, proud, lazy and thievish People. The chief *Commodities* are Gold, Ivory, Hides, Wax, Ambergrease, *Guinea* Pepper, Red-wood, Sugar, Civet, &c. Their Religion is *Paganism*; and their Languages many, the chief of which is call'd *Sungai*.

Of Nubia.

NUBIA is properly a Part of *Ethiopia Superior*: The Air is here extremely hot, being seldom qualified with Rain. The *Soil* is said to be very fertile near the *Nile*; but elsewhere barren, and cumber'd with Mountains of Sand. The *Nubians* are reported to be strong, courageous, cunning, laborious, warlike and wealthy People. Their *Traffic* is in Gold, Ivory, Civet, Sugar, Arms, &c. The *Religions* here are *Paganism* and *Mahometanism*. Their Language is peculiar to themselves, yet hath some Affinity to the *Arabic* and *Chaldean* Tongues.

Of Ethiopia
Superior.

ETHIOPIA Superior contains the Empire of the *Abyssines*, and the Coasts of *Abex*, *Ajan*, and *Zanguebar*. The Air of this Country is very hot, except in some low Valleys. The *Soil* is very fertile in some Parts, and over-run with sandy Mountains and formidable Rocks in others. The People are esteem'd to be lazy, ignorant and treacherous in general, though some are ingenious and religious. The *Commodities* are Gold, Metals, Gems, Corn, Cattle, Salt, Flax, Wines, Sugar-Canes, &c. Here are *Pagans*, *Jews*, and *Mahometans*, but the Body of the Natives is *Christian*. The *Ethiopic* Language has some Affinity with the *Hebrew* and *Chaldee*.

Of Ethiopia
Inferior.

ETHIOPIA Inferior contains the Empires of *Moncemugi* and *Monomotapa*; the Kingdoms of *Angola*, *Congo*, *Loango* and *Biafar*; and the Country of the *Cassers*. The Air of these Countries is extremely hot in general, but is qualified with daily Showers and Winds. The *Soil* is various in different Parts, some being more fertile than others, and some entirely barren. The People are of divers sorts also, and are generally

nerally esteem'd a swarthy, dull, and savage People, especially those call'd *Cassers* or *Hottentots*. The Commodities of these Kingdoms are Gold, Silver, Ambergrease, Pearls, Musk, Rice, Millet, Cattle, Lemons, Citrons, Ivory, Oil, &c. The Inhabitants are all in general *Pagans* of the grossest Notions; and their Languages are peculiar to the several Nations.

On the CONTINENT of AMERICA.

MEXICO or *NEW SPAIN* contains three Audiences, viz. *Guadalajara*, *Mexico* Province, and *Guatama*. The Air of this Country is pretty temperate, tho' in the *Torrid Zone*. The Soil is very fertile in Grain, Fruits, Herbs and Ores. This Country is in the Hands of the *Spaniards*. The Natives are said to be a civil, docile and faithful People. The Commodities are Wool, Cotton, Sugar, Silk, Cochineal, Feathers, Honey, Balm, Amber, Salt, Tobacco, Tallow, Hides, Ginger, and divers sorts of Drugs. The *Spaniards* have here one Archbishoprick and eleven Bishopricks. The general Language is the *Spanish*, and the Religions *Paganism* and *Poper*y.

GRANADA or *NEW MEXICO* is a large Country, but of no certain Extent or Division. The Air is very temperate and healthful, but attended with frequent Hurricanes, besides Thunder and Lightning. The Soil, so much of it as is known, is generally dry, sandy and barren. The Inhabitants are said to be tolerably civil, addicted to Hunting, and to understand *Agriculture*. The Commodities of this Country are very few, Cattle being the chief or only thing they trade in. The *Spaniards* residing here, use their own Religion and Language; but the Natives are gross Idolaters.

FLORIDA enjoys a very temperate Air, and a Soil wonderfully fertile in Grain, Herbs, and Fruits. The *Floridans* are tall, well-proportion'd, Warriors, and go almost naked; and tho' naturally *white*, they paint themselves of an Olive Colour. The Commodities here are few and costly, viz. Gold, Silver, Pearls and Furs. The *Spanish* Colonies here use their own Religion and Language, the Natives being gross Idolaters, worshipping the *Sun* and *Stars*.

S

CANA-

Of Canada.

CANADA comprehends on the North of *St. Laurens River*, *Canada Proper*, *New Britain*, and *New France*; on the South, the Territories of *New Scotland*, *New England*, *New York*, *New Jersey*, *Pennsylvania*, *Maryland*, *Virginia*, *Carolina*. Of these Countries (especially the six or seven latter ones) the Air is generally temperate and wholesome, and the Soil rich and fertile; tho' in some Parts it is barren enough. The *English* are Masters of the greatest Part of these Countries. The Commodities are Fish, Grain, Masts, Deals, Iron, Tar, Beaver Skins, Furs, &c. from *New England*: Tobacco, Beaver, Otter, Rattoon, Deer, and Elk Skins, and other costly Furs from *New York*: Whale-Oil and Fins, Beaver, Monkey, Rattoon, and Martin Skins, with Provisions from *New Jersey*: Horses and Pipe-Staves to *Barbadoes* from *Pennsylvania*: Tobacco, Hemp, Flax, Wood, Hops, Rape-seed, Madder, Furs, Elk Skins, &c. from *Maryland*: Skins of Deer, Beaver, and other wild Beasts, but especially Tobacco, from *Virginia*: Skins of Otters, Bears, and Leopards, with Oil, Olives, Cotton, and divers sorts of Drugs from *Carolina*. The *English* here residing, profess the different Persuasions among *Protestants*; and the Natives are *Idolaters*, and have particular *Jargons* of Speech.

Of Terra Firma.

TERRA FIRMA contains eleven Governments, viz. *Caribana*, *Guiana*, *Panama*, *Carthagena*, *St. Martha*, *Rio de la Hacha*, *Venezuela*, *Andalusia*, *Paria*, *Granada*, *Popayan*. The Air is extremely hot, yet wholesome; the Soil very fertile, when well manured. The Natives are tawny, robust, healthful, long-liv'd, and go naked above the Middle. The Commodities of this Country are Gold, Silver, and other Metals, Balsam, Resin, Gums, Long-Pepper, Emeralds, Sapphire, Jasper, &c. Here is one *Spanish* Archbishoprick, and four Bishopricks. The Natives are gross *Idolaters*, and have great Diversity of Languages and Dialects in each Language.

Of Peru.

PERU is divided into six Provinces, *Quito*, *Peru*, *Los Charcas*, *Pacamores*, *Los Quixos*, and *Posito*. The Air is in some Parts extremely hot, in others sharp and piercing. The Soil is the richest of all the *Spanish* Plantations, abounding with exceeding high Mountains, and large and pleasant Valleys. The *Peruvians*

ruvians are some simple and very ignorant, others more ingenious, but addicted to Diffimulation and Sodom. The Commodities are vast Quantities of Gold and Silver, costly Pearls, Cotton, Tobacco, Cochineal, and other Drugs, &c. Here is one *Spanish* Archbishoprick, and five Bishopricks. The Natives are mostly Idolaters, but some are converted to *Christianity*. They generally speak the *Spanish* Tongue.

THE LAND of the *AMAZONS* is very little known; the Air is temperate, and the Soil fertile, so far as it is yet discover'd. There are on the Banks of the River *Amazone* about fifty Nations of fierce savage People, said to eat human Flesh. The Commodities are reckon'd Gold, Silver, Sugar, Ebony, Cocoa, Tobacco, &c. Their Religion is *Paganism*, and their Languages unknown.

Of the Country of the Amazons.

BRASIL is divided into fourteen Captainries, viz. *Para, Maragnan, Siara, Rio Grande, Parabia, Tamaraca, Pernambuco, Seregippe, All Saints Bay, Los Ilheis, Porto-seguro, Spiritu-Santo, Rio-Janeiro, St. Vincent.* The Air is very temperate and wholesome, though in the *Torrid Zone*. The Soil is extraordinary fertile. The *Brasilians* are said to be a cruel, thievish and revengeful People in general, but those which are civilized prove ingenious. The Commodities are Red or *Brasil* Wood, Sugar, Amber, Rosin, Balm, Tobacco, Train Oil, Confectures, &c. The Natives have but a faint Notion of God or Religion; and tho' they have divers Languages, 'tis said they can't pronounce the three Letters, L, F, R.

Of Brasil.

PARAGUAY is divided into seven Provinces, viz. *Guayra, Paraguay Proper, Parana, Uruguay, Rio de la Plata, Tucuman, Chaco.* The Air is said to be very temperate and healthful; the Soil very fertile in Corn, Wine and Fruits. The People are very big and tall, yet nimble and agile; they are said to be less savage than many other *Indians*; laborious, and revengeful of Wrongs. The Commodities are Gold, Silver, Brass, Iron, Sugar, Amethyfts, &c. Here is one *Spanish* Archbishoprick, and four or five Bishopricks. The Religion of the Natives is gross Idolatry, and their Language an harsh and unpleasant Jargon.

Of Paraguay.

CHILI is divided into three Governments, viz. *Chili Proper, Chicuito, and Chili-Imperial.* The Air

Of Chili.

in *Summer* is very warm and temperate, but in *Winter* excessively sharp and piercing. As to the Soil, the mountainous Parts are generally dry and barren, but the Valleys are exceeding fertile in Maize, Wheat, and other Grain. The People are white, tall, courageous and warlike. The Commodities are Gold, Silver, Maize, Corn, Honey, Ostriches and Metals. The unconverted *Chilians* are the grossest Idolaters of all the *Americans*, the chief Object of their Worship being the Devil, whom they call *Eponamon*, i. e. Powerful. Most of them use the *Spanish* Tongue, and some their antient Jargon.

HAVING thus given a succinct Account of those Parts of the four Continents which are known, I pass over the unknown Parts to the principal Islands, Mountains, &c.

ISLANDS of EUROPE.

Of the European Islands.

THE Principal of these are, (1.) The *Britannic* Isles, *Great Britain* and *Ireland*; with the lesser ones of *Man*, *Anglesey*, *Wight*, *Fersey*, *Guernsey*, *Alderney*, &c. and the Clusters of Islands call'd the *Orcades*, the *Shetland*, and the *Hebrides*. (2.) The *Scandinavian* Islands, or those belonging to *Sweden*, *Denmark* and *Norway*; as *Gothland*, *Zealand*, *Funen*, &c. (3.) *Iceland*, a large Island, subject to the Crown of *Denmark*. (4.) The *Azores*, which are in Number nine, possessed and inhabited by the *Portuguese*. (5.) The *Mediterranean* Islands, viz. *Yvica*, *Majorca*, *Minorca*, *Sardinia*, *Corfica*, *Sicily*, *Malta*, *Crete* or *Candia*, *Cyprus*, &c. (6.) The numerous Isles in the *Archipelago*, the *Ionian Sea*, &c. most of which are subject to the *Turk*.

ISLANDS of ASIA.

Of the Isles of Africa.

THESE are (1) The Isles of *Japan*; as the famous Isle of *Japan* itself, *Tonsa*, and *Bungo*, &c. (2.) The Isle of *Formosa* lying near the middle *Eastern* Coast of *China*. (3.) The *Philippine* Isles; as *Luconia*, *Mindanao*, *Tendaye*, with several small ones. (4.) The *Moluccoes*; the chief whereof are *Gilolo*, *Ceram*, *Celebes*. (5.) The Islands *Des Larrons*, or of Thieves. (6.) The

(6.) The *Sunda Islands*, the chief of which are *Borneo*, *Sumatra* and *Java*. (7.) The *Maldives*, a Cluster of very small Isles in the *Indian Sea*. (8.) *Ceylon*, a famous Isle near *Cape Comorin*, in the *Indian Sea*, abounding in most sorts of Spices.

ISLANDS of AFRICA.

THESE are (1.) *Madagascar*, the largest and most considerable of all, lying off the *East Coast* of *Ethiopia*. (2.) The *Islands of Cape Verde*, which are ten in Number, and situate to the *West* of *Negroland*. (3.) The *Canary Islands*; which are fourteen in Number, among which are the noted Isles of *Teneriff*, *Ferro* and *Canaria*; these lie near the *Coast* of *Bildulgerid*. (4.) *Madera*, noted for its excellent Wine. It is situated over-against the Kingdom of *Fez* in *Barbary*. (5.) *St. Helena*, *Ascension Isle*, *St. Thomas*, *Zocotora*, and divers other small ones up and down in the *Atlantic* and *Indian Oceans*. Of the Isles of Africa.

ISLANDS of AMERICA.

THESE are (1.) *California*, the largest Island in the World, lying *West* of *New Mexico*, in the great *South Sea*. (2.) *New-found-Land*, a very large Island, in the Possession of the *English*; it lies before *St. Laurens Bay*, in *North Latitude* 50 Degrees. (3.) The *Antilles*, which contain many single Islands very considerable, as *Cuba*, *Hispaniola*, *Porto-Rico*, belonging to *Spain*, and *Jamaica* to the *English*. They also comprehend several Clusters of small Islands; as (4.) The *Caribbee Isles*; the Chief of which are *St. Christopher's*, *Antego*, *Monferrat*, *Barbadoes*, &c. (5.) The *Lucayos Isles*, mostly belonging to the *Spaniards*. (6.) The *Sotovento Isles*, lying along the *North Coast* of *Terra Firma*, and belonging to the *Spaniards*. (7.) *Bermudas*, or the *Summer Islands*, belonging to the *Crown of England*. (8.) *Terra del Fuego*; this is an Island separated from the most *Southern Parts* of *America* by the *Streights of Magellan*; and of which our Knowledge is very uncertain. Of the Isles of America.

MOUNTAINS.

Of the chief
Mountains in
the World.

OF MOUNTAINS, some are extended to a vast Length, and rise very high, and are call'd *Ridges* or *Chains of Mountains*; the chief whereof are (1.) The *Dolphrino Hills* between *Sweden* and *Norway*. (2.) The *Hyperborean Mountains* in the *North Part* of *Muscovy*. (3.) The *Caparthian Mountains* in the *South Part* of *Poland*. (4.) The *Pyrenæan Hills* between *Spain* and *France*. (5.) The *Alps* between *Italy*, and *France* and *Germany*. (6.) The *Apennine Hills*, dividing *Italy* into *East* and *West*. (7.) Mount *Taurus*, reaching from *East* to *West* of all *Asia*. (8.) *Imaus*, in *Tartary*. (9.) *Caucasus*, between *Tartary* and the *Mogul's Empire*. (10.) The *Libyan Mount* between *Zaara* and *Egypt*. (11.) Mount *Atlas*, between *Barbary* and *Biledulgerid*. (12.) The *Mountains of the Moon*, in *Ethiopia*. (13.) The *Andes*, extending *North* and *South* thro' the whole Length of *South America*.

OTHERS are single, and remarkable for their exceeding Height, as the *Pike* in *Teneriff*, &c. But others are still more remarkable for being *Vulcano's*, or such as have terrible Eruptions of Fire, Coals, Smoak, &c. As *Ætna* in *Sicily*; *Vesuvius* in *Naples*; *Hecla* in *Iceland*; with many others in several Islands and Parts in the *Torrid Zone*.

OCEANS.

Of the Oceans.

THE mighty Body of Waters which overwhelms, by far, the greatest Part of the Earth's Surface, is divided into several *Oceans*, viz. (1.) The *Hyperborean* on the *North*; and, (2.) The vast *Western Ocean*, on the *West* of *Europe*. (3.) The *Tartarian* and *Chinesian* Oceans on the *North* and *East*; and, (4.) The *Indian*, and Part of the vast *Southern Ocean*, on the *South* of *Asia*. (5.) The *Ethiopic* and *Atlantic Ocean*, and Part of *Mer del Zur*, on the *West* and *South* of *Africa*. (6.) The vast *Oriental Ocean* on the *East*. And, (7.) The great *Pacific Ocean* on the *West* of *America*.

S E A S.

OF SEAS (properly so call'd) there are but few; *Of the Seas.*
viz. The *Mediterranean Sea*, included between *Europe* on the *North*, and *Barbary* and *Egypt* on the *South*, and Part of *Asia* on the *East* and *North East*. (2.) The *Baltic Sea*, inclosed with *Sweden* on the *West*, *Lapland* on the *North*, Part of *Poland* on the *East*, and Part of *Germany* on the *South*. (3.) The *German Sea*, inclosed with *Great Britain* on the *West*, and *Scandinavia* on the *East*. (4.) The *Irish Sea*, or rather *Streights*, or *Channel*, between *Ireland* and *Great Britain*. (5.) The *Euxine Sea*, inclosed with Part of *Europe* on the *North* and *West*, and Part of *Asia* on the *South* and *East*. (6.) The *Caspian Sea*, or rather the *greatest Lake* in the *World*, as being entirely surrounded with *Land* on the *Continent of Asia*. All other *Seas* besides these are but *Parts of the Oceans*.

As for *GULPHS*, *STREIGHTS*, *LAKES*, *RIVERS* and *BAYS*, they are so numerous, and of so little Importance in a bare Rehearsal of their Names, that the Reader can expect to find a distinct Account of them only in larger Treatises on this Subject.





Of CHRONOLOGY, or the DOCTRINE of TIME.

Chronology defined.



CHRONOLOGY is a Science which has for its Subject the *Doctrine of Time*. Or, it is a *Discipline* which is conversant about the Nature, Properties, Parts, and Use of Time, in a *Civil Sense*.

The Nature of Time defined.

THE Nature of Time is of a *Physical Consideration*; and therefore Time is defined to be the *Duration of Things*; and the *Parts of Time* the *Intervals of Succession of Phænomena*; and the *Idea* we have thereof consists in the Order of successive *Perceptions*. This Definition agrees to Time *absolutely* consider'd; but Time in a *relative* Sense, is that which is measur'd or estimated by certain *Motions*, either equal, as *Clocks, Watches, &c.* or unequal, as of the *Sun* or other *Heavenly Bodies*; and this is otherwise call'd *apparent* or *vulgar Time*.

Of the Parts of Time.

THE Parts of Time in use among us are *Minutes, Hours, Days, Weeks, Months, Years, Ages, Cycles, and Periods*. A View and Explanation of the Nature and Uses of these make the first Part of this curious and excellent Science of *Chronology*.

The true Method of treating of Time.

It appears to me to be a preposterous Method of treating the *Doctrine of Time*, to begin with *Minutes, Hours, &c.* and not (as the Nature of the Thing requires) with *that Measure of Time*, which is the *Original* and *Standard* on which the rest depend; or the *Whole*, of which the others are but *Parts* and *Subdivisions*.

A Year defin'd.

THIS *Original, Standard, or Integral Measure of Time*, then, is that we call a *Year*. A *Year* is the *Space, or Part of Time, or Duration measured by one entire*

entire Revolution of some celestial Body in its Orb, viz. the Sun or Moon.

THAT which is measured out by the Revolution *Of the Solar* of the *Sun* in the *Ecliptic*, is call'd the *Solar Year*; *Tropical Year.* and this is properly the *Natural* or *Tropical Year*, which contains 365 Days, 5 Hours, 48'. and 57".

BUT the *Space of Time* in which the *Sun* departing *Of the Solar* from any *fixed Star*, comes to it again, is call'd the *Sydereal Year.* *Sydereal Year*, which contains 365 Days, 6 Hours, 9'. 14".

THE *Lunar Year*, is the *Space of Time*, in which *Of the Lunar* the *Moon* performs 12 compleat *Revolutions* about *Year.* the *Earth*, call'd *Lunations*; and contains 354 Days, 8 Hours, 48'. 38".

YEARS are distributed into *Astronomical* and *Years Astrono-* *Civil*; the *Astronomical Year* is that which results *mical or* from, or depends on the *Principles of Astronomy*: *Civil.* Such are those above described. For the *Tropical Year* depends on one of the *Cardinal Points*, viz. the *Equinox* or *Solstice*; and the *Sydereal Year* on a *fixed Star*; and both on *Astronomical Observation* and *Calculation*.

THE *Civil Year* is that in common Use among *The Civil* the several Nations of the World; it is either *Solar Year, what.* or *Lunar*. The *Civil Solar Year* is again either *Common, and* *Common* or *Bissextile*. The *Common Year* is reckon'd *Bissextile or* to contain only 365 Days, the odd Hours and *Leap-Year.* Minutes being here neglected. The *Bissextile Year*, otherwise call'd *Leap-Year*, consisteth of 366 Days; the Day over and above the *Common Year* being call'd the *Intercalary* or *Bissextile Day*.

THIS *Intercalation* of a *Bissextile Day* was first *The Original* appointed by *Julius Cæsar*, to be made every fourth *of the Bissex-* *tile or Leap-* *Year.* Year, to the end the *Civil Year* might keep pace with the *Tropical Year*. For the *six Hours*, whereby the latter exceeded the former, in four Years make a *whole Day*; which therefore was then added to the 23d Day of *February*, which was the *Sixth* of the *Calends of March* in the *Roman Calendar*. In this Year therefore they reckon'd that *sixth Day* twice (in *Latin Bis sextus Dies*) and thence came the Name *Bissextile* for *Leap-Year*. But in our *Almanacks* we add that *Intercalary Day* at the End of the said Month, every fourth Year.

THE

*Of the Civil
Lunar Year.*

*Common and
Embolimic.*

Of the Original of the Julian Year, or Old Style.

Of the Original of the Gregorian Year, or New Style.

THE *Civil Lunar Year* is *Common*, or *Embolimic*. The *Common Lunar Year* consists of 12 *Lunations*, which are finish'd in 354 Days, at the End of which the Year begins again. The *Embolimic Year* was that wherein a Month was intercalated, to adjust the *Lunar* to the *Solar Year*. This *Intercalation* or *Embolism* was used by the *Jews*, who went by the *Lunar Motions* in their Accounts.

THE *Romans* also at first used this *Embolimic Lunar Year*, which was settled by *Romulus* their first King, and consisted only of ten Months, or 304 Days; and thus coming short of the true *Lunar Year* by 50 Days, and of the *Solar Year* by 61, this Year became vague and unfix'd: Which *Numa Pompilius*, the second King, observing, added two other Months, *January* and *February*, and thereby made the Year consist of 12 Months, or 355 Days. But this Improvement not being sufficient to adequate the Year to the Motion of the *Sun* or *Moon*, and keep the *Seasons* even and steady *Julius Cæsar* instituted the *Civil Solar Year*, by adding 10 Days to every common Year of *Numa's*, and one Day extraordinary to every fourth Year, as aforesaid. This therefore was ever since call'd the *Julian Year* or *Account*; and *Old Style*, which is still used by us in *England*, and by all *Protestant Countries*, except those of *Holland* and *Germany*.

BUT since the *Julian Year* of 365 Days and 6 Hours exceeds the true *Solar Year* by 11 Minutes, this Excess in 131 Years amounts to one Day; and in the Time of *Pope Gregory XIII.* was grown into 10 Days. The *Nicene Council A. D. 325.* having fix'd *Easter* to the next Sunday after the *Full Moon*, which came next after the *Vernal Equinox*, which was then on the 20th of *March*, it happen'd that in the Year of our Lord 1582 *Pope Gregory* observ'd, that the said Fault of the *Julian Year* had cast the *Equinoxes* 10 Days, and the *Full Moons* 4 Days more backward, than they were at the Time of the said Council; viz. to the 11th of *March*, and 1st of *April*. Thus the Feast of *Easter*, and consequently all other *Moveable Feasts*, became unfix'd, and attended with great Disorder. To remedy this, the *Pope* order'd 10 Days to be taken from *October* that Year,

Year, that thus the *Equinox* might be reduced to the 21st of *March*; and to keep it there, order'd, that, since in the *Julian Account* every 100th Year is a *Bissextile*, and so 4 in 400 Years, in the Ages to come, 3 of those 4 *Leap-Years* should be changed to common Years, and that only one 100th Year in every 4 Centuries should conclude with a *Bissextile*. This Correction adjusts the Year and Seasons near the Truth, and is call'd the *Gregorian Account*, or *New Style*, and is us'd by the *Papists* every where.

THE first and principal Division of the Year is *Of Months* into Parts we call *Months*; and these are of as many *and the several Sorts.* Kinds as are the Years of which they are Parts: *viz.* *Astronomical* and *Civil.* The *Astronomical Month*, *Astronomical* which is also the *natural one*, is properly a *Lunar* *and Civil.* *Month*, or the Space of Time in which the *Moon* runs thro' the *Zodiac*; and is either (1.) *Synodical*, *Lunar Synodical.* call'd a *Lunation*; which is the Time contain'd between the *Moon's* parting from the *Sun* at a *Conjunction*, and returning to him again; which is in 29 D. 12 H. 44'. 3". (2.) *Periodical Month*; which is the *Periodical.* Space of Time wherein the *Moon* makes one compleat Revolution, or returns to the same Point of the *Zodiac* whence she departed; this contains 27 D. 7 H. 43'. 8". (3.) The *Illuminative Month* is the *Illuminative.* Time between the Appearance of two *New Moons* next each other, or the Time a *Moon* is observ'd to *shine*; which is always variable.

THE *Solar Month* is improperly thus call'd, as being only the Space of Time in which the *Sun* runs thro' *one Sign* of the *Zodiac*: Which Months, one with another, contain each 30 D. 10 H. 29'. 5".

Civil Months are those which are framed to serve the Uses of civil Life; and are different in different Nations and Countries of the World. These come very near the Quantity of *Astronomical Months*, both *Lunar* and *Solar*: Whence came the Distinction of *Civil Lunar* and *Civil Solar Months*. A *Civil Lunar Month* consisteth alternately of 29 and 30 Days thro' the Year. Those of 29 Days were call'd *Cavi*, or *Hollow*; and those of 30, *Pleni*, or *Full*. *Civil Solar Months* consisted alternately of 30 and 31 Days; except one of the 12, which every 4th Year was to have 30 Days, in other Years 29 only.

THE

THE Names, Quantities, &c. of the Civil Months used by several Nations to compose their Years or Calendars, may be seen in the following Tables.

Julian Year.			The ancient Roman Year.			The ancient Grecian Year.		
		Days			Days			Days
1	January	31	Januarius	29	Hecatombeon	29		
2	February	28	Februarius	28	Metagitnion	30		
3	March	31	Martius	31	Bædromion	29		
4	April	30	Aprilis	29	Mœmaeterion	30		
5	May	31	Maius	31	Pyanepsion	29		
6	June	30	Junius	29	Posideon	30		
7	July	31	Quintilis	31	Gamelion	29		
8	August	31	Sextilis	29	Antheſterion	30		
9	September	30	September	29	Elaphebolion	29		
10	October	31	October	31	Munychion	30		
11	November	30	November	29	Thargelion	29		
12	December	31	December	29	Scirrhophorion	30		
Days in Year 365			Days in Year 355			Days in Year 354		
This is a Solar Year, and there remains 5 Hours and 49 Minutes towards an Intercalar Day for Bissextile, or Leap-Year.			This was the Year which first began with Martius, till Numa added 2 more Months, January and February; and after Julius Cæsar added 10 Days to equate it with the Solar Year.			This is a Lunar Year used at Athens, and required 11 D. 5 H. 49' to equate it with the Solar Year.		

N ^o	The Jewish Civil Year.	Days	The Syrian Year.	Days	The Arabic and Turkish Year.	Days
1	<i>Tisri</i>	30	<i>Tisbrin I.</i>	31	<i>Muharram</i>	30
2	<i>Marchesvan</i>	29	<i>Tisbrin II.</i>	30	<i>Saphar</i>	29
3	<i>Casseu</i>	30	<i>Canun I.</i>	31	<i>Rabia I.</i>	30
4	<i>Tebeth</i>	29	<i>Canun II.</i>	31	<i>Rabia II.</i>	29
5	<i>Shebat</i>	30	<i>Shabat</i>	28	<i>Jomada I.</i>	30
6	<i>Adar</i>	29	<i>Adar</i>	31	<i>Jomada II.</i>	29
7	<i>Nisan</i>	30	<i>Nisan</i>	30	<i>Rajab</i>	30
8	<i>Fiar</i>	29	<i>Aiyar</i>	31	<i>Shafban</i>	29
9	<i>Sivan</i>	30	<i>Haziram</i>	30	<i>Samadan</i>	30
10	<i>Tamuz</i>	29	<i>Tamuz</i>	31	<i>Shawal</i>	29
11	<i>Ab</i>	30	<i>Ab</i>	31	<i>Dulkaadah</i>	30
12	<i>Elul</i>	29	<i>Elul</i>	30	<i>Dulheggia</i>	29
Days in Year		354	Days in Year		365	Days in Year 354
In the Embolismic Year after <i>Adar</i> they add the Month <i>Ve-Adar</i> of 30 Days.			This is equal to our Julian Year.		This Year is Lunar, and the same with the Grecian and Jewish Year.	

N ^o	The Persian Year.	Days	The Egyptian Year.	Days	The Ethiopian Year.	Days
1	<i>Afrudiab Meh</i>	30	<i>Thoth</i>	30	<i>Mascaran</i>	30
2	<i>Ardibascht Meh</i>	30	<i>Paophi</i>	30	<i>Tykymt</i>	30
3	<i>Cardi Meh</i>	30	<i>Athyꝛ</i>	30	<i>Hydar</i>	30
4	<i>Thir Meh</i>	30	<i>Chojac</i>	30	<i>Tysbas</i>	30
5	<i>Merded Meh</i>	30	<i>Tybi</i>	30	<i>Tyr</i>	30
6	<i>Schabarir Meh</i>	30	<i>Mechir</i>	30	<i>Jacatit</i>	30
7	<i>Mehar Meh</i>	30	<i>Phamenoꝑh</i>	30	<i>Magabit</i>	30
8	<i>Aben Meh</i>	30	<i>Parmuthi</i>	30	<i>Mijazia</i>	30
9	<i>Adar Meh</i>	30	<i>Pachon</i>	30	<i>Ginbat</i>	30
10	<i>Di Meh</i>	30	<i>Pauni</i>	30	<i>Syne</i>	30
11	<i>Behen Meh</i>	30	<i>Ephiphi</i>	30	<i>Hamle</i>	30
12	<i>Affirer Meh</i>	30	<i>Mefori</i>	30	<i>Habafe</i>	30
Embo- lism.	<i>Musteraka</i>	5	<i>Epagomenæ</i>	5	<i>Pagomen</i>	5
Days in Year		365	Days in Year		365	Days in Year 365

*The Division
of a Month
into Weeks and
Days.*

A MONTH is divided into four Parts, which we call *Weeks*, and each *Week* is again made to consist of seven Parts, call'd *Days*. Of these Months there are thirteen in a *Julian Year*, and one Day over; of *Weeks* there are fifty-two, and of *Days* three hundred and sixty-five, as before observ'd.

*Definition of
a Day.*

A DAY is either the *Space of Time* contain'd between the Moments of the Sun's *Rising* and *Setting*, or in which he makes one *entire Revolution*. The first is call'd an *Artificial Day*; the latter a *Natural Day*, and by the *Greeks Nychthemeron*, because it included the *Night* and *artificial Day* together.

*Artificial and
Natural.*

*Of Artificial
Days.*

THE *Artificial Day* is ever variable and unequal; for the Sun's Course being always *oblique* to the *Horizon*, and always varying, causeth that the Time of his Stay, or his *Duration* above the *Horizon*, which is the *artificial Day*, is ever variable and changing, and that in Reality for one half of the Year, or the Time the Sun is passing from one Solstice to the other, increasing or decreasing. This is evident from the *Doctrine of the Sphere*.

*Of Natural
Days.*

*Astronomical
or Civil.*

*Astronomical
Day unequal.*

THE *Natural Day* is either *Astronomical* or *Civil*: The *Astronomical Day* is the Time which flows between the Sun's leaving any *Meridian* and its Return to the same; that is, the Space of Time in which the Earth makes one Revolution about its *Axis*, which is twenty-four Hours, and the Time answering to the Degrees it hath describ'd in its annual Orb during that Revolution. Now this additional Motion is always *unequal*, both because of the *Obliquity* of the Plane of the *Ecliptic* to the Plane of the *Equator*, and also because of the *Oval Figure* of the *Earth's* Motion; but one time with another it is 59' 8" per Day, which is perform'd in 3' 0" 32". Therefore a mean *astronomical Day* consists of 24 H. 3' 0" 32".

*Its mean Mea-
sure.*

*Of the Civil
Day.*

THE *Civil Natural Day* is that which is measur'd out by the *equable Motion* of *Machines*, as *Clocks*, *Watches*, and other *Automata*. This is always *equal*, and contains 24 *Hours*.

*The time when
several Na-
tions begin
their Civil
Day,*

THE Beginning of this *Natural Civil Day* is various according to the different Usage of People. The antient *Greeks*, *Jews*, *Bohemians*, *Silesians*, with the modern *Italians*, and *Chinese*, commence the Civil Day at Sun-set. The antient *Babylonians*, *Persians*,

Persians, Syrians, with the modern Grecians, &c. begin their Day from Sun-rise. The *Ausonians, Egyptians, Romans, with the modern English, French, Dutch, Germans, Spaniards and Portuguese,* at Midnight. And, lastly, the *Umbrians, and Arabians,* with the modern *Astronomers,* begin their Day at Noon. But in this Affair you meet with some Uncertainty and Confusion, in what relates to Antiquity.

AN Hour is the 24th Part of a Day; and are equal *Of Hours.* or unequal. *Equal Hours* are those by which the *Equal and* whole Time of a Civil Natural Day and Night is *unequal.* divided into 24 equal Parts. *Unequal Hours* are those by which the Time of an Artificial Day is divided into 12 Parts, and the Night into as many. These are also call'd *Temporary or Planetary Hours,* on a superstitious Account not worth mentioning.

THE Hours of an *Astronomical Day,* or those from Noon to Noon, are not precisely equal, but the Difference is so small that it is not worth minding, and makes no Error in Uses of common Life. To reduce unequal Hours to equal ones, say; As 12 Hours is to the Space of an Artificial Day, so is one *equal* Hour to its correspondent *unequal* one. *To reduce unequal to equal Hours.*

THE Hours are denominated of the People who use them. Thus *Babylonian Hours* commence their Order from *Sun-rising*; *Italian Hours* from *Sun-setting*; *Astronomical Hours* from *Noon or Mid-day*; and by some the unequal Hours are stiled *Jewish,* because that Nation used them. *Various Denominations of Hours.*

AN Hour is divided into 60 equal Parts, call'd *Of Minutes* *Minutes* or *Scruples*; and each *Minute* into 60 *Seconds*; and *Scruples,* these again into 60 *Thirds,* and so on. These Divisions are well enough known. But the *Jews, Chaldeans, Arabians,* and other *Eastern People,* divide the Hour into 1080 *Scruples,* because there is no Number capable of so many *Divisors* as this, which therefore they thought most fit for Use. But the Number 1080 is 18 times 60, and so one Minute contains 18 *Jewish Scruples.* *Of the Jewish, &c. Scruples.*

THE larger Spaces of Time which have found Distinction among Mankind are (1.) A *Lustrum,* *Of the larger Times.* which is a certain Space of Time antiently applied to Civil Uses, as *Sacrificing, Taxations,* letting *A Lustrum.* Farms,

Farms, &c. and though formerly it was reckon'd to consist of 5 Years, yet *Chronologers* do now repute it only as 4. (2.) *Seculum*, a Century or Space of 100 Years; though among the Antients they had a *natural Seculum*, which they reputed to be the longest Space of a Man's Life. (3.) *Ævum* an Age, a Space of Time indefinitely used for the Life or Age of a Man; sometimes for 100 Years; and sometimes for *Eternity*. (4.) The *Olympiad*, which was a Space of 4 Years, or 50 Months of 30 Days each. At the Expiration of each *Olympiad* the *Olympic Games* were celebrated near the City *Olympia* in Honour of *Jupiter Olympius*. The antient *Greeks* made all their Computations by the Years of the *Olympiads*.

A Cycle, what. A *CYCLE* is (in plain *English*) a *Circle of Years, Months, Days, &c.* Or, it is a perpetual *Round* or *Circulation* of any the same Parts of Time; so that the last continually returns upon and succeeds the first. Of *Cycles*, the following are of famous and frequent Use.

The Solar Cycle. THE *Cycle of the Sun*, or *Solar Cycle*, is a *Circle* or *Revolution* of 28 Years. This Cycle receiv'd both its *Name* and *Origin* from the seven Letters of the *Alphabet A, B, C, D, E, F, G*, which were placed in the *Almanack* to denote the Days of the Week in Order, from the first to the seventh throughout the Year. Now because one of those seven Letters must necessarily stand against *Sunday*, or the *Lord's-Day*, it was wrote in the *Capital Form*, and was call'd the *Dominical Letter*, the other six being put into small Characters.

Of the Beginning of the Year in regard of the Days of the Week. Now since a *Julian Year* contains 365 Days, if that Number be divided by seven, there will remain one Day: If there had been no Remainder, 'tis plain every Year would constantly begin on the same Day of the Week; but since one Day remains, 'tis as evident the Year must begin and end on the same Day of the Week, and therefore the next Year will begin on the Day following. For Instance, the Year 1737 began on a *Saturday*, and therefore will end on a *Saturday*, and the next Year 1738 will begin on a *Sunday*.

IF the first Day of *January* be on a *Sunday*, A will be the *Dominical* or *Sunday* Letter for that Year; then because the next Year begins on *Monday*, the *Sunday* will fall on the seventh Day, to which is annexed the seventh Letter G, which therefore will be the *Dominical Letter* for all that Year: Also the next Year after will begin on *Tuesday*, and the *Sunday* will fall on the sixth Day, therefore the sixth Letter F will be the *Sunday* Letter for that Year. Whence 'tis plain the *Sunday* Letters will go in a retrograde Order thus, G, F, E, D, C, B, A. G, F, &c. And in the Course of seven Years (were they all common ones) the same *Days* of the *Week* and *Dominical Letters* would return to the same *Days* of the *Month*.

The Dominical Letters shift their Course in a retrograde Order.

BUT because in a *Bissextile* Year there are 366 Days, there will be 2 Days over and above the 52 Weeks; if that Year should begin on a *Sunday*, it will end on a *Monday*, and the next Year would begin on a *Tuesday*, the first *Sunday* of which would fall on the sixth of *January*, to which is annex'd the Letter F, and not G, as in common Years. By this means, the *Bissextile* Year returning every fourth Year, the Order of *Dominical Letters* succeeding each other is interrupted, and the Series does not return to its first State, till after 4 times 7, or 28 Years; which Period of Time therefore is the *Cycle* of which we are discoursing, and when compleated the Days of the Month return in the same Order to the same Days of the Week.

The Cycle of 7 enlarged to that of 28 Years by means of the Bissextile Year.

IN every *Bissextile* Year there are two *Dominical* Letters; the first of which takes place to the 24th or 25th of *February*; and the other the rest of the Year. For in the *Bissextile* Year those two Days are reputed as one, and both of them have the same Letter F annex'd to them, and by this means the Order of the *Sunday* Letter is interrupted, and a different one henceforth takes place. For Example, the Year 1736 was a *Bissextile* one, and in the Beginning the *Sunday* Letter was D; and the 22^d being *Sunday*, it was the last Time this Letter officiated, for the next *Sabbath* was indicated by the Letter C, as thus appears by the Days and Letters of the last Week.

Every Bissextile Year has two Dominical Letters.

D. e. f. f. g. a. b. C.
22, 23, 24, 25, 26, 27, 28, 29.

T

THIS

The Solar Cycle deficient.

THIS Cycle is not exactly true and just to the Motion of the Sun, as I have before observ'd; since the Julian Year does not contain quite 365 D. 6 H. for the Sun finishes his Course in 365 D. 5 H. 49', and therefore begins again his Course or Round 11 Minutes before the Civil Year is ended. And thus every Year will begin 11 Minutes sooner than by our Account. Hence, if at the Council of Nice, A. D. 325, the Equinox fell on the 21st of March, it would after 131 Years fall on the 20th, after 262 Years on the 19th; and thus, after 1310 Years, or A. D. 1635, it must fall on the 10th of March; which Pope Gregory XIII. observing A. D. 1582, made the Correction which I have before related; and this Reformation of the Calendar ought to be receiv'd wherever Truth and Learning find Regard.

A just Cycle of 7200 Years.

BUT even the Gregorian Emendation is not the strict Truth; for the 11 Minutes in 400 Years make 3 D. 1 H. 20'. But the Pope neglected the 1 H. 20', which in 18 times 400, or 7200 Years, makes a whole Day; and therefore no less a Cycle than of 7200 Years will restore the first Agreement between the Calendar and the Solar Motions.

To find the Year of the Solar Cycle.

THE ninth Year of the Solar Cycle was past when the first Year of the Christian Computation commenc'd; therefore in order to find the Year of the Cycle for any Year of Christ, proceed thus. Add 9 to the given Year, and divide the Sum by 28; the Quotient shews the Number of Cycles that have revolv'd since the first Year of Christ, and the Remainder is the Year of the Cycle; but if there be no Remainder, the present Year is the 28th or last Year of the Cycle.

A Table shewing the same.

BUT this may be seen by Inspection from henceforth to the Year 1800, in the following Table.

Sol. Cycle	Dom. Let. English.	Dom. Let. Roman.	Dom. Let.	Anno Domini			Sol. Cycle	Dom. Let. English.	Dom. Let. Roman.	Dom. Let.	Anno Domini		
1	G	F	D	C	1728	1756	1784	15	C	G	1742	1770	1798
2	E		B		29	57	85	16	B	F	43	71	99
3	D		A		30	58	86	17	A	G	E	D	
4	C		G		31	59	87	18	F	C	44	72	1800
5	B	A	F	E	32	60	88	19	E	B	45	73	
6	G		D		33	61	89	20	D	A	46	74	
7	F		C		34	62	90	21	C	B	G	F	
8	E		B		35	63	91	22	A	E	47	75	
9	D	C	A	G	36	64	92	23	G	D	48	76	
10	B		F		37	65	93	24	F	C	49	77	
11	A		E		38	66	94	25	E	D	B	A	
12	G		D		39	67	95	26	C	G	50	78	
13	F	E	C	B	40	68	96	27	B	F	51	79	
14	D		A		41	69	97	28	A	E	52	80	
											53	81	
											54	82	
											55	83	

THE *Metonic Cycle* is next in Consequence and Importance; it is thus call'd from its Inventor *Meton* or *Meto* an *Athenian*, who first publish'd it at *Athens* in the Year before *Christ* 432. He call'd it *Enneade-caeteris*, or *Cycle of 19 Years*, which we since call the *Lunar Cycle* or *Cycle of the Moon*; the Numbers of which being of excellent Use, were written in antient *Calendars* in *Letters of Gold*, whence they came to be call'd *Golden Numbers* and *Primes*.

THIS *Lunar Cycle* was invented to shew the Changes of the *Moon*, and the Time of *Easter* and other *moveable Feasts*; and that by means of those Numbers they call'd *Epaets*. These *Epaets* are (as their Name implies) *Added Numbers*; that is, a Number of Days added to the *Lunar Year*, to make it even or equal to the *Solar Year*.

Of the Primes or Golden Numbers.

The Use of the Cycle.

Epaets, what they are.

	D.	H.	"	"
The Solar Year contains	365	5	48	57
And the Lunar Year	364	8	48	38

The Difference is the *Epaet*, 10 21 00 19

T 2 Now

How the
Epact's were
reckon'd with
the Primes.

Now as this Difference wants but 3 Hours of 11 Days, the Antients took no notice thereof, but made the *Epact* of the first Year of the *Cycle* 11 Days; whence the *Epact* of the second Year would be 22 Days, the *Epact* of the third Year 33; but for each 30 Days they intercalated a *Month*, and reckon'd the odd 3 Days the *Epact* for that Year; and thus they proceeded by adding 11 Days, and intercalating a *Month* for every 30, till at the end of 19 Years, nothing remaining of the former *Epact* (which for the last, or 19th Year, is always 12) there began a new or second *Revolution* of the *Epact's* and *Golden Numbers*. Here follows a Table of the *Golden Numbers* and *Epact's*.

A Table shew-
ing the *Golden*
Numbers and
Epact's for
every Year of
the *Cycle*, till
the Year 1800.

Gol. No.	Epact's.	Anno Domini				Gol. No.	Epact's.	Anno Domini.			
1	11	1729	1748	1767	1786	10	20	1738	1757	1776	1795
2	22	30	49	68	87	11	1	39	58	77	96
3	3	31	50	69	88	12	12	40	59	78	97
4	14	32	51	70	89	13	23	41	60	79	98
5	25	33	52	70	90	14	4	42	61	80	99
6	6	34	53	72	91	15	15	43	62	81	1800
7	17	35	54	73	92	16	26	44	63	82	
8	28	36	55	74	93	17	7	45	64	83	
9	9	37	56	75	94	18	18	46	65	84	
						19	00	47	66	85	

The Defect of
the Cycle.

FROM the Table 'tis evident that in the Course of a *Cycle* there are 7 intercalary Months, viz. one in the 3^d, 6th, 9th, 11th, 14th, 17th, and 19th Year of the *Cycle*. But notwithstanding all their Care of *Epact's* and *Embolimic* Months, this *Cycle* is still defective. For the *Epact* of 11 Days exceeds the true *Epact* of 10 D. 21 H. 11', by 2 H. 49', which in 19 Years make 2 Days 5 Hours. To equibalance this Excess, the 7 *Embolimic* Months were made to consist of 30 Days each, which is more than the *Synodical Month* by 11 H. 15' 57". This Excess, multiplied by 7, makes 3 Days, 6 Hours, 31 Minutes. But this again over-balances the former Excess by 25 H. 31'; therefore by allowing 12 Days instead of 11 for the *Epact* of the last Year of the *Cycle* to answer this $25\frac{1}{2}$ odd

odd Hours, 'tis plain the *Solar Year* will, at the end of the *Cycle*, be greater than the *Lunar Year*, by about 1 H. and 31'.

BUT though this Deficiency of the *Cycle* be small, yet in Time it becomes very sensible; for by this Analogy $1\frac{1}{2} \text{ H} : 19 \text{ Y} :: 28 \text{ H} : 304 \text{ Years}$; 'tis plain, in the Space of 304 Years it amounts to one Day. Now the Council of *Nice*, A. D. 325, fitting this Cycle of the *Moon* to the *Calendar*, it did nearly enough, for some time, give the *New Moons*. But the *Lunations* in every 304 Years anticipating a whole Day, and since the said Council have pass'd $4\frac{1}{2}$ times 304 Years, the *New Moons* happen sooner by $4\frac{1}{2}$ Days at this time by the Golden Number, than they really do in the Heavens. Yet notwithstanding this, the *Church of England* (averse to Alterations) retains this old erroneous way of computing the *Lunations*; and her *Doctors*, when they speak of those false and erroneous *new* and *full Moons*, to take off the *Odium*, refine the Expression into *Ecclesiastical* ones.

IN the first Year of *Christ*, the Golden Number was 2; therefore to the current Year of *Christ* add 1, and divide the Sum by 19; the Remainder (neglecting the Quotient) will be the Golden Number for that Year of *Christ*.

SINCE the Council of *Nice* hath fix'd the *Vernal Equinox* to the 21st of *March*, and appointed the first *Full Moon* which happens after it to be the Boundary of *Easter*, which is therefore call'd the *Paschal Term*; and the earliest *Paschal Term* being the 21st of *March*, and the next *Sunday* after being *Easter Day*, 'tis plain the earliest *Easter possible* is the 22^d of *March*: And the 18th of *April* being the latest *Paschal Term* that can happen, the seventh Day after, viz. the 25th of *April*, is the latest *Easter possible*, and such it was in the Year 1736. Now within the Limits of the 22^d of *March* and 25th of *April*, are 35 Days; the Number belonging to each of which is call'd the Number of *Direction*, because by means of it the Times of *Easter*, and other moveable Feasts, are ascertain'd for any Year, as below is shewn.

Golden Numb.	A	B	C	D	E	F	G
1	19	20	21	22	16	17	18
2	5	6	7	8	9	10	11
3	26	27	28	29	30	24	25
4	19	13	14	15	16	17	18
5	5	6	7	8	2	3	4
6	26	27	21	22	23	24	25
7	12	13	14	15	16	10	11
8	33	34	35	29	30	31	32
9	19	20	21	22	23	24	18
10	5	6	7	8	9	10	4
11	26	27	28	29	30	31	32
12	19	20	21	15	16	17	18
13	5	6	7	8	9	10	4
14	26	27	28	29	23	24	25
15	12	13	14	15	16	17	18
16	5	6	7	1	2	3	4
17	26	20	21	22	23	24	25
18	12	13	14	15	9	10	11
19	33	34	28	29	30	31	32

To find the
Number of
Direction.

To find the *Number of Direction* for any given Year of *Christ*, find the *Golden Number* and *Dominical Letter* for the same, which observe in the Table adjoin'd, the first in the first Column, the other at the Top, and in the Place of Meeting you have the *Number of Direction*.

Example for
the Year
1736.

THUS for the Year of our Lord 1736, the *Golden Number* is 8, and the *Dominical Letter* (after *February*) is C; then against 8 in the side Column, and under C is 35, the *Number of Direction* requir'd.

How to find
Easter.

THEN to find *Easter*, add the *Number of Direction* to the 21st of *March*; if the Sum be under 32, it is the Day of *March*; if above 31, subduct 31 from it, the Remainder is the Day of *April*, on which *Easter Sunday* will fall that Year for which you use the *Number of Direction*. Thus in the Year 1736, the *Number of Direction* 35 added to 21 makes 56, from which subtract 31, there remains 25, the Day of *April* on which *Easter Sunday* then happen'd. Again, in the Year 1738, the *Golden Number* is 10, the

the Dominical Letter is A ; and so the Number of Direction 5, which added to 21 makes 26, the Day of *March* on which *Easter* did then fall.

HAVING found *Easter*, the other moveable Feasts Of the Moveable Feasts. are found by the Verses following :

The *Sunday* next the Feast of St. *Andrew*
 The *Advent* of our blessed Lord doth shew.
 Th' unstated Feast *Septuagesima*
 Nine Weeks 'fore *Easter* stands by *Paschal* Law.
 The *Sunday Sexagesima* we call
 Does just eight Weeks 'fore *Easter Sunday* fall.
 Next * *Quinquagesima* by seven Weeks
 Precedes, and † *Quadragesima* by six.
 Five after *Easter* we *Rogation* find ;
 And five Days thence ‡ *Ascension* is assign'd.
 The sev'nth from *Easter* is || *Whitsunday* Feast ;
 On *Trinity-Day*, at eight Weeks end, we rest.

* *Shrove-Sunday.*
 † *First Lent Sunday.*
 ‡ *Holy Thursday.*
 || *Descent of the Holy Ghost.*
To find the Age and Phases of the Moon.

By means of the *Epaets*, the Age of the Moon is thus found. Add the *Epaet* of the given Year, the Day of the Month, and the Number of Months from *March* to the given Month inclusively ; and the Sum, if under 30, is the Moon's Age ; if above, deduct 30 or 60, the Remainder is the Age sought. Note, the *Epaet* of the old Year must be used till the first of *March*. Example ; I would know the Moon's Age *May* the 12th, 1736 ; the *Epaet* is 28, then the Sum of 28 and 3 and 12 is 43 ; subduct 30, the Remainder shews the Moon to be then 13 Days old ; wherefore on the 14th of *May* will be the *Full Moon* ; and 15th before, viz. 29th of *April*, the *Moon* chang'd.

To find the Time of the *Moon's Southing*, multiply her Age by 4, and divide that Product by 5, the Quotient is the Hour ; and multiply the Remainder by 12 for Minutes. Thus in the foregoing Example, her Age is 13, which multiplied by 4 is 52 ; this divided by 5 quotes 10, the Hour at Night of her *Southing* ; and the Remainder 2 by 12 gives 24 Minutes after 10, according to the mean Motion.

To find the Moon's Southing.

FROM the Cycles of the *Sun* and *Moon* multiplied into one another arises another Cycle or Period of 532 Years (for 28 by 19 gives 532,) which was invented by *Victorius* a Presbyter of *Limoges* in *Aquitain*, by order

Of the Victorian Period.

der of *Hilary* Bishop of *Rome*, and is therefore call'd the *Victorian Period* ; after the Expiration of which he supposed all the New and Full Moons, the same Times of *Easter*, and the same Dominical Letters would all come over again in the same Order of Time as in the former Cycle, and so on in all following Cycles for ever. This was finish'd and first publish'd in the Year of our Lord 457. Afterwards, in the Year 527, *Dionysius Exiguus*, a Roman Abbot, corrected it in some Particulars, and it was call'd the *Dionysian Period* from him ; as also the *Great Paschal*, because the *Western Churches* went by it for many Ages, till Pope *Gregory XIII.* new model'd it, as before related.

The Dionysian Period.

Great Paschal.

To find the Year of the Dionysian Period.

To find the Year of the *Dionysian Period* for any given Year of Christ, to the current Year add 457, and divide the Sum by 532, what remains is the Year of the Period sought. Example ; to the Year 1736 add 457, the Sum is 2193, which divided by 532, the Quotient is 4, and the Remainder is 65, the Year current of the *Dionysian Period*.

Of the Calippic Period.

THERE is another Period of 76 Years, invented by *Calippus Cyzicenus* of *Mysia*, and therefore call'd the *Calippic Period*. He supposed the Excess of the *Solar Year* above the *Lunar* at the End of the *Metonic Cycle* of 19 Years, would in the Course of 4 of those Cycles, or 76 Years, amount to a whole Day, and so cast away a Day in every such Period of 76 Years. But herein he was greatly deceiv'd, for the Excess of the *Solar* above the *Lunar Year* in one Cycle is but $1\frac{1}{2}$ Hour, and therefore in 4 Cycles, or 76 Years, could amount to but 6 Hours instead of 24. Wherefore the Error of this Period is a Deficiency of 18 Hours nearly.

Its Defect.

Of Hipparchus's Period.

THIS gave Occasion afterwards to *Hipparchus* of *Nicæa* in *Bithynia* to make a new Correction of the *Metonic Cycle* ; for he observing that the *Calippic Period* was laid too great by a Quarter of a Day in the *Solar Motions*, he multiplied it by 4, which produced a new Period of 304 Years ; and therefore in every 304 Years he deducted a whole Day, that the Moon might come again to the old Place in the Calendar. And this was very near the Truth, and much the same with the *Gregorian Correction*, or *New Style*, made many Ages after.

THE

THE Romans made use of a Cycle, call'd the *Cycle of Indiction*, which had no Relation to the *Celestial Motions*, but was used for *Civil Purposes*, the chief of which was to *indicate* or make known the Time of certain Payments made by the *Roman Subjects* to the *Republic*. It consisted of 3 *Lustrums*, or 15 Years; and was establish'd by *Constantine*, A. D. 312, in the room of the *Greek Olympiads*. To find the Year of this Cycle, substract 312 from the given Year of Christ, and divide the Remainder by 15; and neglecting the Quotient, what remains is the Year of the *Indication* sought.

Of the Cycle of Indiction.

To find the Year thereof.

FROM the Multiplication of the Cycles of the *Sun*, *Moon*, and *Indication* arises the famous *Period*, call'd the *Julian Period* from *Julius Scaliger* the reputed Author thereof. This *Period* consists of 7980 Years, (for 28 by 19 gives 532; and that by 15 gives 7980.) This *Period* had its Beginning fix'd to the 764th Year before the Creation, and is not yet compleated; and therefore comprehends all other *Cycles*, *Periods*, and *Epochas*, and the Times of all *memorable Actions* and *Histories*. There is but one Year in the whole *Period* that has the same Numbers for the three Cycles of which it is made up: And therefore if Historians had remark'd in their Annals the Years of the respective Cycles, there had been no Dispute about the Time of any Action.

Of the Julian Period.

THE first Year of Christ was the 4714th Year of the *Julian Period*; and therefore if to the current Year of Christ we add 4713, the Sum will be the Year of the *Julian Period*. So the Year 1736 will be found to be the 6449th Year of the said *Period*.

To find the Year thereof.

THERE is another call'd the *Constantinopolitan Period*, which is of the same Length or Number of Years as the *Julian Period*, viz. 7980; but it neither begins at the same time, nor have the Cycles of the Sun and Moon the same Situation in both; for the first Year of the *Solar Cycle* in the *Julian*, is the 12th in this; and the first of the *Lunar* is the 17th here; the Cycle of *Indiction* is the same for the most part in both. This *Period* is used by the *Greeks*, as the *Julian* is by the *Latins*, or *Roman Historians*.

Of the Constantinopolitan Period.

EPOCH A or ÆRA is a certain Term or fix'd Point of Time, made famous by some memorable Accident;

Of Epochas or Æras.

cident ; from which, as from a Root, we make our Calculations and Computations of Time ; and all remarkable Actions are disposed and recorded according to the Series of Years which follow from such a Root or *Epocha*. The principal *Æra's* are those of the *Creation*, of the *Olympiads* among the *Greeks*, of the *Building of Rome* ; that of *Nabonassar*, the *Death of Alexander*, the *Abyssine Æra of Martyrs*, the *Arabian Hegira*, the *Persian Jeshdegird*, the most famous *Æra* of the *Birth of CHRIST* ; and that which contains them all, the *Julian Period*, above explain'd. All these *Epocha's* and *Æra's*, together with several others of less Note, have, in the following Table, their Beginnings reduced or fixed to the Years of the *Julian Period*, the *Creation of the World*, and to the Years before and after *CHRIST*.

	<i>Jul. Per.</i>	<i>A. M.</i>	<i>ante C.</i>
1 The Creation of the World, after the <i>Jews</i> —	952	1	3760
2 The common <i>Epocha</i> of the Creation —	765	1	3950
3 The same by the <i>Greek Emperors</i> —	787	1	3926
4 The same in <i>Mr. Bedford's Scripture Chronology</i> —	706	1	4007
5 The Deluge, or <i>Noah's Flood</i> —	2362	1657	2351
6 The <i>Assyrian Monarchy</i> by <i>Nimrod</i> —	2665	1960	2048
7 The Birth of <i>Abraham</i> —	2714	2009	1999
8 The <i>Israelites</i> 400 Years Servitude in <i>Egypt</i> —	2819	2114	1894
9 The Kingdom of <i>Argos</i> founded by <i>Inachus</i> —	2857	2152	1856
10 The Kingdom of <i>Athens</i> founded by <i>Cecrops</i> —	3157	2452	1556
11 The <i>Israelites</i> Departure out of <i>Egypt</i> —	3219	2514	1494
12 Their Entrance into <i>Canaan</i> , or the Jubilee —	3258	2553	1533
13 The Destruction of <i>Troy</i> —	3530	2825	1183
14 The first <i>Sabbatical Year</i> —	3260	2557	1451
15 The <i>Jewish</i> High-Priesthood —	3300	2603	1405
16 King <i>David's</i> Reign —	3646	2941	1067
17 The Foundation of <i>Solomon's Temple</i> —	3698	2993	1015
18 The <i>Epocha</i> of <i>Nabonassar</i> —	3966	3261	747
19 The <i>Olympiads</i> —	3938	3233	775
20 The Building of <i>Rome</i> —	3962	3257	751
21 The Destruction of the Kingdom of <i>Israel</i> —	3992	3287	721
22 The <i>Babylonish</i> Captivity —	4108	3302	606
23 The Destruction of <i>Solomon's Temple</i> —	4126	3421	587
24 <i>Cyrus</i> the Founder of the <i>Persian Monarchy</i> —	4178	3472	536
25 The Battle at <i>Marathon</i> —	4223	3517	491
26 <i>Xerxes's</i> Defeat at the Battle of <i>Salamis</i> —	4234	3528	480
27 <i>Meto</i> began his Cycle —	4282	3576	432
28 The Beginning of the <i>Peloponesian War</i> —	4283	3577	431
29 <i>Daniel's</i> Seventy Weeks of Years began —	4269	3564	444

30 The

	<i>Jul. Per.</i>	<i>A. M.</i>	<i>ante C.</i>
30 The Beginning of the <i>Calippick</i> Period ———	4383	3677	331
31 The Death of <i>Alexander</i> ———	4390	3684	324
32 The <i>Grecian</i> Epocha of the <i>Seleucidæ</i> ———	4402	3695	312
33 The <i>Æra</i> of the <i>Asmoneans</i> or <i>Maccabees</i> ———	4548	3841	166
34 The <i>Antiochean</i> Epocha ———	4665	3958	49
35 The Correction of the Calendar by <i>Julius Cæsar</i> ———	4669	3962	45
36 The Beginning of the Reign of <i>Herod</i> ———	4677	3970	37
37 The <i>Spanish</i> <i>Æra</i> ———	4676	3969	38
38 The Battle at <i>Actium</i> ———	4683	3976	31
39 The Epocha of the Title of <i>Augustus</i> ———	4687	3980	27
40 The true Birth of <i>CHRIST</i> ———	4710	4005	4
41 The Vulgar or <i>Dionysian</i> Year of Christ's Birth ———	4714	4009	<i>A. C.</i>
42 The Passion or Death of Christ ———	4746	4041	33
43 The Destruction of the City of <i>Jerusalem</i> ———	4783	4078	70
44 The <i>Dioclesian</i> or <i>Æra</i> of Martyrs ———	4997	4292	284
45 The Epocha of <i>Constantine the Great</i> ———	5019	4314	306
46 The Council of <i>Nice</i> ———	5038	4333	325
47 The Encœnia of <i>Constantinople</i> ———	5043	4338	330
48 The Epocha of the <i>Hegira</i> ———	5335	4610	622
49 The Epocha of <i>Yefdejerd</i> ———	5345	4620	632
50 The <i>Jellalæan</i> or <i>Gelalæan</i> Epocha ———	5792	5067	1079
51 The Epocha of the REFORMATION ———	6230	5505	1517





Of HISTORY; and the ORIGINAL of NATIONS and KINGDOMS.

*Historiography
History, and
Historiology
defined.*



HISTORIOGRAPHY is the Art or Method of *writing History*. *History* is a *Narration or Relation of Things, Actions, and Events*, just as they happen'd or were transacted, in an orderly Manner. And *Historiology* is the *Doctrine or Knowledge of History* in general, as a *Science* taught and learnt.

*The World and
Mankind had
their Original
from God, ac-
cording to Mo-
ses's History.*

THE *World* (the *grand Theatre of Action*) had its *Original* as related by *Moses*; who also at the same Time gives us the *History* of the *Origin of Man*, and all other Things, which he positively assures us were the *Effects* of God's wonderful and omnific Power. The *sacred Writings* therefore are the *first and most authentic History* in being.

*Arguments
proving the
Truth of the
Mosaical Hi-
story.*

BUT abstracting from their unquestionable Authority, we may prove the Truth of their *History* of the *Original of Mankind*, &c. by the following *indubitable Arguments*. (1.) The *Tradition* of all *Ages* and *Nations* ascribes the *Original* of Mankind to *Creation*, or to *Parents* who were not *begotten in the common Way*, but created. (2.) *Observation* proves the *Increase* of People daily exceeds their *Decrease*; and that *Nations* double their People in about 360 Years or sooner. (3.) The *gradual, slow and late Inventions* of *Arts* and *Sciences* confirm it; they all having had their *Rise* within the *Compass* of 5 or 6000 Years. (4.) The *obscure Original* of *Nations*, and the *late Institutions* of *Laws* or *Governments*, of *War*, &c. plainly prove the same. (5.) The *Plantations* of most Parts of the *World*, and the *Discovery* of the *greatest Part* of the *Earth*, is of *late Date*.

THE

THE *Mosaical History* then being of undoubted *The chief Truth*, we may safely depend on its *Account* of the *Heads of the State and Events* of the *first or antediluvian Ages of Mosaical History*, for that only is the Source of all our *story*. Knowledge of that Kind. The History of the *Antediluvian World* may be comprised under the following Heads. (1.) The *Formation of the Earth* out of *The Creation a Chaos*, the *Creation of Light*, and, in short, the *of the World*. whole *Structure and beautiful Order* of the *Solar System*. (2.) The *Formation of Man, and Woman*, *Of Men and all other Creatures*, by the immediate *Power of all Creatures*. God. (3.) The *original State* of the first Man and *Man's original State*. Woman, *Adam and Eve*, viz. *corporeal Nakedness*; perfect *Rectitude of Mind*; the *Rule of their Conduct*; the *Place of their Dwelling*; their *Employment*, &c. (4.) Their *Defection* from this original State of perfect *Bliss*, by *transgressing the divine Command*, the *Rule of their Conduct*. (5.) Their *Degredation*, and *The Effects* *Subjection to a servile and miserable State of Life* thereof. (6.) The *Birth of Cain and Abel*; and *Birth of Abel the Murder of Abel by Cain*; and the *Consequences and Cain, &c.* thereof. (7.) The *Birth of Seth*, and the *Genealogy* *Ths Genealogy* of the *Patriarchs from Adam to Noah*; with the *of the Patri-Inventors of Mechanic Arts and Trades*. (8.) The *universal Corruption of Mankind at the Time of Noah*, *The Corruption of the old* the *Threatning of the Flood*, their *Impenitence* and *of the old* *Incorrigibleness*, the *Building of the Ark by Noah*, *World*. and (9.) The total *Destruction of the World by the* *The Deluge*. threaten'd *Deluge or Flood of Waters*, with the *miraculous Manner* thereof. (10.) Lastly, The *Pre-* *The Preservation* *servation of Noah and his Family*, with *some of every* *tion of Noah, &c.* *Sort of terrestrial Animals and Fowls in the Ark*, for the *replenishing the World anew*. These great *Events* are all distinctly related by the *Divine Historian*, in a *Style perfectly Sublime and full of Energy*.

THE Earth being again render'd *habitable*, Noah *The Earth re-* turns out all *Kinds of Creatures* into the *silent, wild, peopled and* and *desolate Earth*, there to propagate their *Species, replenished*. and store it as before; while *Himself and Family* (the only *Remains of the great Shipwreck of human Kind*) betook themselves to the *Cultivation of the Earth* afresh, and *repeopled it with Inhabitants*, in the following *Manner*.

THE

The Sons of
Noah.

THE three Sons of Noah were *Shem*, *Ham*, and *Japhet*; and it is said, that by the *Descendants* of *Japhet* were the *Isles* of the *Gentiles* divided, or inhabited. By the *Isles* of the *Gentiles*, the *Learned* say, is to be understood the *Countries* of *Lesser Asia*, and of *Europe*. Of the Sons of *Japhet*, the Family only of *Gomer* and *Javan* are mention'd. From *Gomer*, the antient *Galatians* were call'd *Gomerites*; and another *People* of this part of *Asia* call'd *Cimmerii*: Moreover the Etymology of *Gomer* and *Phrygia* are alike, and *Phrygia* did antiently extend over a great Part of *North Asia*; wherefore *Gomer* settled there. The first of *Gomer's* Sons is *Ashkenaz*, and in *Bithynia* there was the *Ascanian Bay*, *Lake*, and *River*, and in *Troas* a *City* and *Province* both called *Ascania*, and on the *Coast* the *Ascanian Isles*. Also *Ascanius* was the Name of *Kings* and great *Men* in those Parts; from all which (and more that might be said) 'tis evident *Ashkenaz* first settled in *Bithynia* and the *North-western Part* of *Asia*.

The Sons of
Japhet.
Gomer,
where seated.

Of *Gomer's*
Sons.
Ashkenaz
settled in *Bi-*
thynia.

Riphat situa-
ted in *Paphla-*
gonia on the
Euxine Coast.

RIPHAT, the second Son of *Gomer*, probably seated his Family in the Parts adjoining Eastward to the Plantations of *Ashkenaz* on the *Euxine Coast*; for antiently the Inhabitants of *Paphlagonia* were call'd *Riphateans* from *Riphat*. There was also a *River* call'd *Rhebæus*. Also *Pliny* here places a *People* call'd *Riphæi*, and another call'd *Arimphæi*; all which are evidently deriv'd from *Riphat*.

The Situation
of *Togarmah*.

THE third and last Son of *Gomer* is *Togarmah*, whose Family was seated in the remaining most Easterly Part of the Nation of *Gomer*, on the *Euxine*. This seems evident from *Ezek.* xxxviii. 6. and xxvii. 14. and the *Trocini* of *Strabo*, who dwelt in the Confines of *Pontus* and *Cappadocia*; and by *Cicero* call'd the *Trogmi*, and *Trocmeri* by *Stephanus*, and still plainer by the *Council* of *Chalcedon*, *Trocmades* or *Trogmades*.

The Colonies of
Gomer plant
Germany,

THESE Families of *Gomer* soon grew very numerous, and sent divers Colonies into several Parts of *Europe*. The first settled at the *Lake Maëotis*, and so gave the Name of *Bosphorus Cimmerius* to the Streight between it and the *Euxine Sea*. These in time spreading by new Colonies along the *Danube*, settled in the Country call'd from thence *Germany*,
whose

whose antient Inhabitants were the *Cimbri*, so call'd of the *Cimmerians*. The *Germans* call themselves *Germen*, which is nearly the same as *Gemren* or *Gomren*; and the *Jews* to this Day call them nothing but *Ashkenazim*, or *Ashkenazites*.

FROM Germany they afterwards spread themselves into Gaul or France, where they were originally call'd *Gomerites*, then by the *Greeks* *Galatæ*, and at last *Gauls*. Also *Appian* assures us that the *Gauls* or *Celtæ* were otherwise call'd *Cimbri*.

FROM the Colonies of France or Germany came the first Inhabitants of this our Isle of Great-Britain; for the *Welsh*, or antient *Britons*, call themselves to this Day *Kumero*, or *Cymro*, and *Kumeri*, and their Language *Kumeraeg*; all which plainly shew them deriv'd from the *Cimbri*; to whom also the *Saxons* and *Angles* were near Neighbours, and so of the same Stock; and consequently we their Descendants may easily derive ourselves from *Gomer*.

THE Sons of *JAVAN* were *Elisha*, *Tarshish*, *Kittim*, and *Dodanim*: These settled in the Southern Part of the *Lesser Asia*; and from *Javan* the Country *Ionia* took its Name; for the *Hebrew* *Javan* is in *Greek* *Ion* or *Iaon*; and as the antient *Greeks* were call'd *Iones* or *Iaones*, that is, *Ionians*, so the Country of *Greece* was call'd *Javan*, as in *Dan. xi. 2*. In those Parts we find several Footsteps of *Javan's* Sons in History. Thus the chief Town of *Cilicia* was call'd *Tarsus*, and the Country itself *Tarshish* from his Son of that Name; see *Jon. i. 3*. From *Kittim* there was a Country call'd *Cetis*, and a People call'd *Cetii*: And from his Son *Elisha* descended the *Æolians*; as, lastly, from *Dodanim* the *Dorians*, and the Name of the Country *Doris*. From hence 'tis manifest that *Javan* and his Sons were the original Founders of the *Grecian Nation* and *People*.

As to the Colonies of *Javan's* Sons, we may observe this in short, That the most considerable Islands between *Europe* and *Asia* tell to the Lot of *Elisha's* Family; for they are call'd the *Isles of Elisha*, *Ezek. xxvii. 7*. and the Sea itself might be call'd *Hellespont*, as if it were *Elishpont*, or *Sea of Elisha*. The Descendants of *Elisha* passing over into *Europe*, were call'd *Hellenes*, and their Country *Hellas*, and afterwards

and France,

and from thence our Isle of Great-Britain.

Of the Sons of Javan and their Settlements. Ionia and the Ionians from Javan.

Tarsus in Cilicia from Tarshish.

The Æolians from Elisha, and Dorians from Dodanim.

The Colonies of Javan's Sons.

Hellespont, whence so called.

Hellas and Hellenes, whence.

The Sea of
Tarsbith,
what.

Of Japhet's
other Sons.

Meshech and
his Descend-
ants, where
settled,
in Moscovy.

Tubal the
Father of the
Iberians and
Russians.

Magog plant-
ed Scythia
and Georgia.

Madai the
Father of the
Medes, or ra-
ther of the
Macedonians,

and of the
Mæsi-
ans in
Europe,
and Sarma-
tians.

wards Greece. The *Dodanim* are said to send Colonies to the Isle of *Rhodes*, *Sparta*, &c. and that the *Kittim* peopled *Macedonia*, *Cyprus*, *Italy*, &c. That the Colonies of *Tarsbith* came from *Cilicia* along the *Mediterranean* to *Spain*, and there fix'd; and using the Sea much, occasioned it to be call'd the *Sea of Tarsbith*.

As to *Japhet's* other Sons, *Magog*, *Madai*, *Tubal*, *Meshech*, and *Tiras*, we have this Account of their Plantations and Settlements.

MESHECH is said to have join'd his Brother *Gomer* on the East, and settled his Family in *Cappadocia* and *Armenia*, and in time sent Colonies into the Northern Parts of *Asia*, and were there call'd the *Moschi*; and from thence the City *Moscow* and the Country *Moscovy*. Thus the *Moscovites* are the Descendants of *Meshech*.

TUBAL planted North of *Meshech*, between the *Euxine* and *Caspian* Seas, and is affirmed to be the Father of the *Asiatic Iberians*, call'd originally *Theobeli* from *Tubal*. 'Tis further supposed that the *Russians* were at first a Colony of *Tubal's* Family.

MAGOG is, by the Consent of all the Learned, placed North of *Tubal*, and esteemed the Father of the *Scythians* that dwelt on the East and North-east of the *Euxine* Sea. Also it is supposed that by *Gog* (*Ezek. xxxviii. 2.*) is meant the People, and by *Magog* the Land of *Scythia*; and that from *Gog* came the Name *Gogarene*, and thence *Georgia*, a Part of this Tract so call'd at this Day.

MADAI is universally allow'd to have been the Father of the ancient *Medes*, and their Country from him call'd *Media*; but of late Mr. *Mede* has placed him in *Macedonia*, which was antiently call'd *Æmathia*, as if it were *Ai-mathia* or *Ai-madia*, i. e. Land of *Madai*. Also he imagines the Name *Macedonia* to be compounded of *Madai* and *Cetim*, whose Sons in time mingled together in those Parts. The *Mæsi-ans* in *Europe* are thought to be a Colony of this Family, as coming near to *Methians*; and that the *Sarmatians* might be so call'd, as if *Sar-Madai*, i. e. a Remnant of *Madai*, or *Madai's* Posterity.

TIRAS,

TIRAS, the last Son of *Japhet*, was undoubtedly the Father of the *Thracians*, and from his Name *Tiras* or *Thiras* the Country was call'd *Thracia* or *Thrace*. But Mr. *Wells* says he first settled in *Lesser Asia*, in the Country from him call'd *Tros*, or *Troas*, or *Troy*; and the *Trojans* were his Descendants: Whence Colonies afterwards going into *Europe* were call'd *Thracians*, &c. as before; which is not only a very learned, but very reasonable Conjecture.

HAVING planted out *Japhet* and his Family, let us next see what became of *Shem* and his. The Sons of *Shem* were *Elam*, *Ashur*, *Arphaxad*, *Lud* and *Aram*.

I BEGIN with *Aram*, as next adjoining to the Nations of his Uncle *Japhet*. He possess'd the Country of *Asia*, call'd from him *Armenia*; also *Mesopotamia*, which in *Hebrew* is call'd *Aram-Naharaim*, or *Aram* between the two Rivers, viz. of *Euphrates* and *Tigris*. And in the Scripture the Word *Aram* is constantly render'd *Syria*. From his Son *Uz*, a Tract about *Damascus*, the *Stony* and *Desart Arabia*, &c. was call'd the *Land of Uz*; and the rest of his Family planted all *Armenia Major*.

ASHUR planted the Country call'd from him *Affyria*, and in the Eastern Tongues *Ashur*, without Variation. It originally contain'd that Country only, lying East of the *Tigris*, which the *Greeks* call'd *Adiabene*.

ELAM seated himself next to *Ashur* Eastward, and peopled the Country afterwards call'd *Persia*. For not only in the *Prophecies*, *Elam* and *Elamites* ever denoted *Persia* and the *Persians*, but in other Authors we find here a Country and City call'd *Elymais*, and a People call'd *Elymæi*, inhabiting on the *Persian Gulph*.

ARPHAXAD is assign'd his Lot, by learned Men, in the most Southern Parts of *Mesopotamia*, together with the Country of *Eden*, and the Tract call'd *Arrapathitis*, a Name plainly derived from his Name, in *Hebrew* *Arpachshad*; a good Part of all which was afterwards call'd *Chaldea*; and *Josephus* says the *Chaldeans* were originally call'd *Arphaxadeans*.

'Tis uncertain
where Lud
planted

Of Ham and
his Sons.

The Descen-
dants of Miz-
raim :

The Ludim,
The Lehabim,
The Naphta-
him,
The Pathrusim
The Caphto-
rim,

The Casluhim,
The Anamim.

Cush settled in
Arabia.

Canaan the
Father of the
Canaanites.

Phut, where
settled :

In Barbary.

As to *LUD* there is nothing certain ; and having settled the rest of the Sons of *Shem*, we proceed next to the *Plantations* of the Sons of *Ham*. The Sons of *Ham* were *Cush*, *Mizraim*, *Phut*, and *Canaan*.

THAT *HAM* and his Son *Mizraim* went and first settled in *Egypt* is manifest, since *Egypt* is twice or thrice, in the *Psalms*, call'd the Land of *Ham* ; and there was the *Temple* of *Jupiter Hammon* or *Ammon*, who was originally no other than *Ham* ; and *Egypt* is evermore in the *Scriptures* call'd *Mizraim*.

THE Descendants of *Mizraim* were the *Budim*, who inhabited *Ethiopia* : The *Lehabim*, who possessed ancient *Libya* in *Africa* : The *Naphtahim*, who dwelt in that Part of *Libya* now call'd the Desert of *Barca* : The *Pathrusim*, who dwelt in *Upper Egypt* or *Thebais*. The *Caphtorim* also had their Situation in a Part of the same Country, as is plain from the Name *Coptus*, an old City of *Egypt* ; and the Christians there are still call'd *Cophites* : And 'tis not unlikely that the Name *Egypt* might come from the same Source, it being call'd *Ægyptus* for *Ægophtus* or *Ai-Cophtus*, the Land of *Coptus* or the *Caphtorim*. From the *Casluhim* sprang the *Philistines*. What is said of the *Anamim* is all uncertain.

CUSH possess'd *Arabia* ; and his Sons *Sebah*, *Havilah*, &c. seated themselves in the several Parts thereof ; from whom we read of the *Sabeans*, the Land of *Havilah*, &c.

CANAAN settled in the Country lying on the East and South-East of the *Mediterranean Sea*, and from him call'd the Land of *Canaan*, which was very populous with his Posterity, the *Zidonians*, *Jebusites*, *Emorites*, *Girgasites*, &c. of which see *Gen. x. 15-18*. This was the Land afterwards promised to *Abraham*, which he and his Posterity accordingly enjoy'd, and was then the Land of *Israel*, and *Judah*.

PHUT is supposed to have taken up his Residence in the Western Part of *Africa* on the *Mediterranean*, in the Country of *Mauritania*, (now *Morocco* and *Algiers*) for there are the Footsteps of his Name in *Putea* a City, and *Phut* a River ; whence the Country was call'd the *Region of Phut*, in *St. Jerome's Time*.

THESE

THESE are the *Plantations* of the Families of the *Gen. x. 32.* Sons of *Noah* after their Generations in their Nations; and after this manner by these were the Nations divided in the Earth after the Flood.

BUT tho' the Scripture gives us an ample Account *The Scripture* of the Original of the different Nations, and People *says nothing of* of *Europe, Asia, and Africa*, yet it speaks not one *America.* Word of *America*, and the *Origin* of the Nations therein. And not only *Moses*, but all other *Histo-*rians are silent with regard to it; the Discovery thereof being never sufficiently made till these last *Ages.*

THE first who effectually discover'd it was one *America was* CHRISTOPHER COLUMBUS, or *Colon*, a *first discover'd* *Genoese*, in a Voyage he undertook for that purpose *by Christopher* by order of the *King of Spain*, A. D. 1492, and on *Columbus.* August 2. On the 12th of *October* following he *At what* landed on the *Isle* which he call'd *St. Salvador*; and *Time.* after this went on and made very great Discoveries on the Continent, as well as of many Islands; and return'd to *Spain* after seven Months and eleven Days. In 1502, May 9, he made a second Voyage to *America*, and enlarged his former Discoveries very much: At length he return'd, and meeting with ungrateful Usage, it hasten'd his Death, which happen'd May 20, 1506.

AMERICUS VESPUCIUS, a Native of *Flo-* *Farther disca-*rence, made the next considerable Discoveries in two *ver'd by Ame-* Voyages, the first of which he undertook May 20. *ricus Vespu-* 1497, and the other May 11. 1500. From him the *cius, who* whole Continent was call'd *America*; though *North* *America* is said to have been discover'd by one *Sebastian* *gave it the* *Cabot* or *Gabot*, but who he was, or of what Country, *Name of Ame-* *rica.* is not agreed; besides the Discoveries of several of the *Inland Countries*, &c. by various other Persons.

UPON the Discovery of this Part of the World, it *How and* was found that every Part of the same was inhabited *whence Ame-* by the *Human Species*, as well as great Variety of *rica was pro-* *Beasts*, &c. But how they should come here is a *Question* difficult to solve, since it has no known *Communication* with either *Europe* or *Asia*. But yet many *modern Authors* and *Travellers* are of opinion that it is either join'd on the North Parts by Land, or separated by very narrow Streights from *Asia*; and

that therefore it was easy, and is very probable that this Part of the World might be peopled by *Colonies* from that, some three or four hundred Years after the Flood. 'Tis certain the *Phœnicians* had an early Acquaintance with the *Cassiterides*, the Islands now call'd the *Azores*, and from thence they might sail to *America*, as 'tis reasonably supposed large Colonies of *Scythians* and *Tartars* did over the Eastern Sea, and so peopled *America* on the West. But I leave these *Conjectures*, and pass to view the *State* of the more known Times of the World.

*The Beginning
of the Assyrian
Monarchy by
Nimrod.*

THE Earth being divided among the *Sons* and *Descendants of Noah*, they soon began to form themselves into *Societies*, and to establish *Laws* and *Governments*, to make *Conquests*, and to aim at Rule, Power, and Empire. The first who began to signalize himself this way was *Nimrod* the Son of *Cush*, and Grandson of *Ham*; of whom *Moses* distinctly saith, *He began to be a mighty one upon the Earth*. He first alter'd *Paternal Government*, and usurp'd Dominion over others, and first invaded the Lot of *Arphaxad*, and made himself Master of the lower Part of the Land of *Shinar*; he there built the *City* and *Tower of Babel* or *Babylon*, and made it the Seat of his *Kingdom*; to which he added *Erech*, *Accad*, and *Calneh* in the same Land. He is said to have reign'd 63 or 65 Years. He was succeeded by his Son *Ninus*, who built *Nineveh*; and joining with the King of *Assyria*, they conquer'd *Armenia*, *Media*, and (in 17 Years) all *Asia*, besides the *Indians* and *Bactrians* under the Command of their famous King *Oxyartis*. He died after 52 Years Reign, and was succeeded by his Wife *Semiramis*, who wore a Man's Habit. She conquered *Ethiopia*, made War on the *Indians*, and was the most victorious of her Times. Her Son *Ninias* slew her after 42 Years, and succeeded. He is said to be the first who drew up Soldiers in Order of Battle, and to have 30 Successors in the Empire; of whom we know nothing, but that one *Tutamus* assisted *Priamus* King of *Troy* when besieged by the *Greeks*; and *Sardanapalus*, the last of them, who was the most voluptuous and effeminate Man in the World; and being besieged in *Nineveh*, at the End of two Years he erected a *Funeral Pile*, and burnt himself therein.

THIS

THIS ancient *Assyrian*, and first of Monarchies, having govern'd *Asia* above 1300 Years, being dissolved on the Death of *Sardanapalus*, there arose up two other Empires in its stead, the one founded by *Arbaces* (the Scripture *Tiglath-Pileser*) Governor of *Media*, and the other by *Belesis* (the same as *Nabonassar*) Governor of *Babylon*, these being the two principal Commanders that headed the Conspiracy whereby the former Empire was brought to an End. These having, on their Success, divided the Empire between them, *Belesis* (who in Scripture is call'd *Baladan*) had *Babylon*, *Chaldea*, and *Arabia*; and *Arbaces* had *Media*, *Persia*, and the neighbouring Provinces. And these were the Beginnings of the *Babylonian* or *Chaldean* Empire, and that of the *Medes* and *Persians*. This happen'd in the 7th Year of the Building of *Rome*, and in the 747th Year before CHRIST, and in the 12th Year of *Jotham* King of *Judah*.

From the Dissolution of the Assyrian Empire arose two others, viz. The Babylonian and Persian.

THE Empire of *Babylon* and *Chaldea* subsisted from its first Founder *Belesis*, to the Death of its last Monarch *Darius* the *Mede*, and Uncle of *Cyrus*, the Space of 210 Years. Also the Empire of the *Assyrians* and *Persians* continued entire from *Arbaces* to *Sennacherib*; in the 5th Year of whose Reign (and the 37th of the Empire) the *Medes* revolted, and made *Deioces* King the next Year; and 30 Years after the Empire of *Assyria* was united with that of *Babylon* under *Eserbaddon*, and in the 19th Year of *Manasseh* King of *Judah*; and thus continued till the predicted *Cyrus* General of the *Medes* and *Persians* arose and subdued them both, then govern'd by *Belshazzar* (or *Nabonadius*) and placed his Uncle *Darius* (or *Cyaxares*) on the Throne of *Babylon*, who after two Years died; when *Cyrus* himself assumed the Imperial Power, and establish'd and founded the second Universal Monarchy, call'd the *Persian* Empire or Monarchy, which extended over all *Asia*, and Part of *Africa* in time, from *India* to *Ethiopia* inclusively.

Their Continuance and Dissolution.

IN the 141st Year of the *Babylonian* Empire, King *Nebuchadnezzar*, in the 20th Year of his Reign, took *Jerusalem*, and carried the *Jews* away into Captivity, where they continued 70 Years, till *Cyrus* again restored them to their own Land, which was in the

From whence arose the second Universal Persian Empire under Cyrus. The Kingdoms of Israel and Judah abolished.

536th Year before Christ: And in the 26th Year of the *Assyrian Empire*, and the 721st before Christ, *Salmaneser* took *Samaria*, led away the ten Tribes of *Israel* into Captivity in *Assyria*, and thereby extinguish'd the Kingdom of *Israel*; which was 115 Years before the Captivity of *Judah*.

Of various Nations contemporary with the Assyrian Monarchy.

DURING the Period from the first great *Monarchy* founded by *Nimrod*, to the second or *Persian Monarchy*, founded by *Cyrus*, several petty Kingdoms in other Parts of the World, especially in *Africa*, had their *Rise*, various *Vicissitudes*, and *Declensions* at different Times; some of the principal of which I shall name in the Order as follows, beginning with *Greece* and its several *Republics*.

GREECE contain'd, in its ancient Extent, *Hellas*, *Theffaly*, *Epirus*, *Macedonia*, *Thracia* in Part, *Peloponnesus*, and many Provinces in *Asia*.

Of the four-fold State of Athens. Monarchy.

IN *HELLAS* was founded the most ancient Kingdom of *Athens*, which Authors observe to have undergone four different States before the *Romans* subdued it, viz. (1.) *Monarchy*; in which it was govern'd by seventeen Kings, from the Year of the World, or *A. M.* 2448 to 2914, the Space of 466 Years; the first of whom was *Cecrops* an *Egyptian*, who founded it, and the last *Codrus*; after whom the *Athenians* abolish'd the *Kingly Power*, declar'd *Jupiter* their only King, and instituted the (2.) *Perpetual Archontes*; the first of whom was *Medon*, and the last *Alcmeon*. There were thirteen, and they govern'd about 316 Years: They instituted the *Olympiads*, and built the Temple of *Jupiter Olympius*, one of the Wonders of the World. (3.) The *Decennial Archontes*, who ruled only ten Years each. Of these there were seven; the first was *Creon* or *Charops*, and the last *Eryxias*: This Government continued seventy Years. (4.) *Annual Archontes*, who were chosen yearly; and this State lasted about 761 Years.

Perpetual Archontes.

Decennial Archontes.

Annual Archontes.

The State of Sicyone; Monarchical.

SICYONE underwent two States of Government. (1.) *Monarchical*, founded about *A. M.* 1900, by *Egialeus* the first King; after him succeeded twenty-five others, the last of which was *Zeuxippe*. This State endured about 900 Years. (2.) *Sacerdotal*, or that by the *Priests of Apollo*; the first of whom was *Archelaus*, and the last *Charidemus*. This Govern-

Sacerdotal, or Hierarchical.

ment

ment lasted about forty Years; afterwards it continued a Free State for thirty-three Years, when 'twas seized by the Kings of *Mycene*.

CORINTH underwent six States: (1.) That of the *Sisipbides*, seven Kings; the first of which was *Sisiphus*, about *A. M.* 2593, and the last *Hiantidas*: These ruled 269 Years. (2.) The *Heraclides*, four Kings; the first was *Aletes*, and the last *Primius*; they govern'd 134 Years. (3.) The *Bacchides*, eight Kings; the first of whom was *Bactris*, and the last *Automene*; this State continued 177 Years. (4.) The *Prytanes*; these were annual *Magistrates*, who ruled about 121 Years, when they fell under the Dominion of the Tyrants *Sisfelus* and *Periander*. (5.) Their next State was that of a *Republic*; during which they were engaged in many Wars. (6.) Their sixth and last State was under the *Romans*, whose Consul *Lucius Mummius* defeated them in Battle, and burnt their Town.

The sixfold State of Corinth. The Sisipbides. The Heraclides. The Bacchides. The Prytanes.

Republic.

Roman.

ARGOS, which look'd upon itself to be the most magnificent City in the World, was governed by eighteen Kings; the first was the Founder thereof *Inachus*, and the last *Agamemnon*. These reign'd from *A. M.* 2148, about the Space of 670 Years; at the End of which happen'd the *Trojan War*.

The State of Argos Monarchical.

LACEDEMON underwent four States. (1.) A *Monarchy*, under eleven Kings; the first was *Lelex* the Founder about *A. M.* 2593, and the last *Tisamene*. (2.) The *Heraclides*, or Descendants of *Hercules*; these were divided into the two Branches of *Euristenes* and *Procles*; they obtain'd the Kingdom by *Lot*, and 'tis said they began their Reign *A. M.* 2862. but 'tis uncertain how long it continued. (3.) Their third State was under four Kings, whose Power was moderated by twenty-eight *Gerontes* or *Senators* appointed by the famous Lawgiver *Lycurgus*; the first was named *Telecles*, who began his Reign *A. M.* 3130, and the last was *Theopompus*. (4.) Their fourth State was under Kings, whose Power was check'd by five *Ephori*, or *Inspectors*: the first of these Kings was *Polydorus*, who began his Reign *A. M.* 3260; and the twenty-first, or last of them, was *Cleomenes III.* He attempted to restore the Government founded by *Lycurgus*, kill'd the *Ephori*, took *Argos* and Part of *Peloponnesus*; but

The fourfold State of Lacedemon.

was at last defeated in Battle by *Antigonus*; after which he retir'd into *Egypt*, and all the Glory of *Sparta* fell with him.

Of Mycene.

MYCENE was governed by three Kings, from *A. M.* 2693 to 2831; the first of which was *Perseus*, and the last *Orestes*, whose Sons were dethron'd by the *Heracledes*, Kings of *Lacedemon*, and subdued *Mycene*.

Thebes.

THEBES, the principal City in *Bæotia*, was under the Government of many Kings, and great Men, whose Names are famous in fabulous History. The first is said to be *Calydnus*, and next to him reign'd *Ogyges*, in whose Time all *Greece* was reported to be deluged. Then *Cadmus* is said to have come into *Bæotia*, and to have brought the Use of Letters with him out of *Phœnicia*. After this we read of *Amphion*, *Oedipus*, &c. and last of all *Xanthus*; who being kill'd in Battle, the *Thebans* renounc'd *Monarchy*, and changed the State to an *Aristocracy* or *Democracy*, as it was when the *Persian* Empire overwhelm'd it.

Troy.

TROY was under the Government of seven Kings, from *Teucus* the first, to *Priamus* the last, for the Space of 300 Years, when it was destroy'd by the *Grecians*.

The Roman State various.

THE History of the *Roman* Affairs is involv'd in Obscurity and Uncertainty, till the Time when *Romulus* founded the City, from him call'd *Rome*, which is said to be about *A. M.* 3300. He form'd the State into a *Monarchy*, and was succeeded by six Kings, the last of which was *Tarquin*, whom *Brutus* drove into Exile, and thus put an end to the Kingly Government, after a Period of about 240 Years. Upon this the *Romans* establish'd the *Consular* Government, which was a Mixture of *Aristocracy* and *Democracy*. This State continued till *Julius Cæsar* again reduced both it and all others to a *Monarchical* or *Despotic Empire*; which was in about 460 Years.

Egypt's ancient State.

EGYPT was famous for its early Government and great Succession of Kings, even from *Ham*, or at least from *Mizraim* his Son, who is reckon'd the first in the Chronology of the *Egyptian* Kings, and is said to have began his Reign there, *A. M.* 1900. From him to *Nectanebus* the Second (who was the last of the *Egyptian* Race) they enumerate thirty-seven Kings inclusively, and 1700 Years, or thereabouts. *Nectanebus*

bus was expell'd by *Ochus* the eighth *Persian* Emperor, and his Kingdom subdued, and made a Part of the *Persian* (which soon after became the *Grecian*) Empire. But we return to take a concise View of

THE *PERSIAN EMPIRE*, which was *Of the Persian Empire, or second Monarchy.* the second of the four great and universal Monarchies of the World. *Cyrus*, as has been observ'd, was the famous Founder thereof in the Year before Christ 536.

He was surnam'd the *Great*, on account of his heroic Actions, and great Atchievements. He was the Son of *Cambyfes* King of *Persia*, by his Queen *Mandana*, the Daughter of *Astyages* King of *Media*, who was Son to *Cyaxares*, Grandson to *Phraortes*, and Great Grandson to *Deioces*, the first absolute King of *Media*. *Cyrus* reign'd seventy Years, and dying, was succeeded by his Son *Cambyfes*; who invaded *Egypt*, vanquish'd *Psammiticus* the King, and added that Kingdom to his Empire. He demolish'd the *Egyptian* God *Apis*, murder'd his Brother *Smerdis*, and his Sister; and died in the eighth Year, infamous for Cruelty and Lust. On his Death (or indeed some time before) the *Magi*, or *Magians*, seized the Empire, and set up an *Impostor*, who they pretended was *Smerdis* the true Son of *Cambyfes*; but this false *Smerdis* having before lost his Ears, the Cheat was soon discover'd by his Wife *Phedyma*; and both he and all his Sect of the *Magians* were slain. Note, the foregoing *Cambyfes* and *Smerdis* were the *Ahasuerus* and *Artaxerxes* of the Scripture, *Ezr.* iv. 5, 6, 7. *Smerdis* being slain the first Year of his Usurpation, they chose *Darius Hystaspes* King, under whom the *Babylonians* revolting, *Darius* belieg'd them, and after twelve Months took their City, beat down the Walls, and gave the Inhabitants for a Spoil to the *Persians*. He made War on the *Scythians*, with great Loss to himself, subdued *Thrace*, and afterward *India*. He reduced the *Hellepont* and *Thracian Chersonesus*. He fought a Battle with the *Greeks*, but was discomfited at *Marathon*. After thirty-six Years Reign, he declares *Xerxes* his Successor, and dies. *Xerxes* thoroughly reduced *Egypt* after a Revolt; he marched with a prodigious Army against *Greece*, and lost the Battle of *Salamis*. He destroy'd the Temple of *Bel* at *Babylon*. He was defeated in many Wars against

the

Grecians, by Armies commanded by the Generals *Pausanias*, *Aristides*, *Themistocles*, *Cimon*, &c. and at last was slain by the Treason of *Artabanus*, in the 21st Year of his Reign. He was succeeded by his Son *Artaxerxes Longimanus* (the *Ahasuerus* of *Esther*.) He slew *Artabanus*, and conquers his Brother *Hystaspes*, and becomes thoroughly settled on the Throne. He divorced *Vashti* his Queen, and chose the Virgin *Esther* for his Concubine. He sent *Ezra* to govern *Judæa*. *Egypt* revolts, but is reduced. *Haman* is put to Death. *Artaxerxes* is defeated by *Cimon* the *Athenian* General, and therefore makes a Peace with them. *Nehemiah* is sent Governor to *Judæa*, who repeoples the City, and reforms the Church and State of the *Jews*. *Meto* begins his Cycle. About the 36th Year of this Reign the Prophet *Malacbi* flourished. In the 41st Year of his Reign *Artaxerxes* dying, was succeeded by his Son *Xerxes*, who was presently slain by *Sogdianus*, and he by *Ochus*, who with the Crown assum'd the Name of *Darius*, and is commonly call'd *Darius Nothus*. The *Egyptians* revolt from him, and make *Amyrtæus* their King. He dies in the 19th Year of his Reign, and is succeeded by *Artaxerxes Mnemon* his eldest Son. He defends his Country against the *Lacedemonians* and *Athenians*, and makes a Peace with them. The *Persians* conquer *Cyprus*. *Artaxerxes* dies in the 46th Year of his Reign, and is succeeded by *Ochus* his Son. Upon his Succession great Revolts were made in the Empire. *Ochus* takes and destroys *Sidon*, he invades *Egypt*, expels King *Nectanebus*, and reduces all the Country. He is poison'd by *Bagoas* in the 21st Year of his Reign, and *Arogus* or *Arfes* made King in his stead. *Bagoas* also poison'd him in the second Year of his Reign, and made his Friend *Codomannus* to succeed him, who then assum'd the Royal Name of *Darius*, and perceiving *Bagoas* had a Design of poisoning him too, he put him to Death. *Alexander*, the Son of *Philip*, late King of *Macedon*, being made General of the *Grecians* against the *Persians*, he defeated *Darius* in three Battles of *Granicus*, *Cilicia*, and *Arbela*, and conquer'd all *Asia*, by which Means the Empire of the *Persians* was transferr'd to the *Grecians*, after it had stood about 205 Years, and in the 4th Year of *Darius* the last King thereof.

ALEX-

ALEXANDER, firnamed the *Great*, was born at *Pella* in *Macedonia*, and gave many surprizing Proofs of his Courage and Dexterity during his Youth; especially in mounting and taming his Father's fierce *Horse*, which none of his *Equerries* could do; whereupon, when he dismounted, King *Philip* his Father told him, with a Kiss, he should go and seek other Kingdoms, for *Macedonia* was too little for him. According as he grew in Years, he signalized his Valour in many wonderful Instances; and at last succeeding his Father as General of the *Grecian* Armies, he passed into *Asia*, and wins the Battle of *Granicus*, where he defeated the *Persian* King *Darius*; and the next Year reduced all *Lesser Asia*, and wins the Battle of *Issus*, where he again defeated *Darius*, and took his Mother, Wife and Daughters, but treated them according to their Quality. After this he march'd into *Syria*, and took *Tyre* and *Gaza*, and destroy'd them both. He went to besiege *Jerusalem*, but was prevented by *Jaddus* the High-Priest, who met him in his *Vestments*, and read to him *Daniel's Prophecy*, which foretold he should conquer the *Persians*; this so pleas'd him, that he made Presents to the Priest, and left the *Jews* in Freedom. Soon after, he conquers *Egypt*; and the next Year, which was 331 before Christ, he began to reign as Emperor of *Asia*, and passing the *Euphrates* and *Tigris*, wins the Battle of *Arbela*, and takes *Babylon*, *Susa*, *Persepolis*, and the Provinces belonging to them. In his second Year *Darius* was slain, and he subdues the *Medes*, *Parthians*, *Hyracians*, *Arians*, &c. and the next Year the *Bactrians* and *Sogdians*; and put *Bessus* to Death as a Traitor to *Darius*, and an Usurper of his Kingdom. In his fourth Year, he married *Roxana* the Daughter of *Oxyathres* a noble *Persian*, and passing to *India*, conquers all to the River *Indus*; and the next Year, he conquers all beyond the *Indus*, to the River *Hephastis*, and returning home by the *Indus*, conquered several Nations in his Way. Two Years after, he conquer'd the *Cossæans*, to divert his Grief for the Loss of his boon Companion and Favourite *Hephestion*, who kill'd himself by Drinking the Year before. After this he pass'd to *Babylon*; during his stay here, he laid aside his former Modesty, and gave himself up to

Of the *Grecian Monarchy* begun in *Alexander the Great*.

The Death of Alexander.

all manner of Debauchery and Luxuries, especially Drinking, by the Excess of which he contracted a Fever, whereof he died, in the ninth Year of his Reign, and the 33d Year of his Age. And here ended all the Designs of this great and vain-glorious Prince. Never had any Man a greater Run of Success than he, who in the Space of twelve Years subdued all the Nations and Countries from the *Adriatic* Sea to the *Ganges*, the greater Part of the then known habitable World.

The great Confusions ensuing thereon

ON the Death of *Alexander* there arose great Confusions among his Followers about the Succession; at length they agreed that *Aridæus*, a bastard Brother of *Alexander's* should succeed on the Throne; but being an *Idiot*, the Government of the Empire was divided among the chief Commanders of the Army, who were sometimes content with the Name of Governors, but at length took that of Kings, as having the Authority from the first. As soon as they were settled in their Provinces, they all fell to leaguings and warring against each other, till they were, after some Years, all destroy'd to four. These were *Cassander*, *Lyfmachus*, *Ptolomy*, and *Seleucus*.

The Division of the Empire.

THESE four divided the whole Empire thus; *Cassander* had *Macedon* and *Greece*; *Lyfmachus* had *Thrace*, and those Parts of *Asia* which lay upon the *Hellespont* and *Bosphorus*: To *Ptolomy* fell *Egypt*, *Lybia*, *Arabia*, *Palestine*, and *Cælo-Syria*; and *Seleucus* the *Upper Syria*, and all the rest.

The Extinction of Alexander's Family and Empire.

ARIDÆUS being made nominal King of *Persia*, had his Name changed for that of *Philip*, and thus reigned seven Years, when *Olympias* the Mother of *Alexander*, caused him to be put to Death with *Eurydice* his Wife, and several others. After which *Alexander Ægus*, the Son of *Alexander* and *Roxana*, bore the Title of King, till *Cassander*, about seven Years after, put both him and his Mother to Death, that he might, without Interruption, seize on the Kingdom of *Macedon* himself, as he accordingly did. And thus the Family and Empire of *Alexander the Great* became entirely extinct.

Cassander governs Macedon.

CASSANDER having govern'd *Macedon* from the Death of his Father *Antipater* 19 Years, died of a Dropsy; and *Philip*, his eldest Son, succeeded, who dying

dying soon after, left the Crown to be contended for by his Brothers *Antipater* and *Alexander*; of which the *first* was driven to Banishment for the impious Murder of his Mother *Theffalonice*, and the *latter* slain by *Demetrius* Son of *Antigonus*, who thereupon obtain'd the Kingdom of *Macedon* for seven Years. Thus the Royal Family of *Philip* King of *Macedon* became utterly extinct. After this the Kingdom of *Macedon* continued till *Perseus*, the last King thereof, was vanquish'd by *Paulus Æmilius*, the Roman Consul; and then it was made a Province of the Roman Empire, after having been a Kingdom under thirty Kings for 933 Years. This happen'd 168 Years before Christ.

PTOLEMY being settled on the Throne of *Egypt*, began his Reign in the 304th Year before Christ. He was firnamed by some *Soter*, by others from his Father *Lagus*. After twenty Years Reign he resigned his Kingdom to his youngest Son *Ptolemy Philadelphus*. This Kingdom subsisted under thirteen Princes, the last of which was *Cleopatra*, the most beautiful and accomplish'd Woman in the World, but excessively given to Pride and Voluptuousness. Her Husband was the famous *Mark Anthony*, whom *Octavius*, *Julius Cæsar's* Nephew, conquered at the Battle of *Actium*, and thereby reduced *Egypt* to a Roman Province, after it had stood a Kingdom in the *Ptolemean* Race 273 Years, that is, in the 31st Year before Christ.

Of the Ptolemean Kingdom in Egypt.

SELEUCUS growing very great in the *East*, at length got the Dominion of *Media*, *Affyria*, and *Babylon*; and afterwards that of *Persia*, *Bactria*, *Hyrkania*, and all the other Provinces on this side the *Indus*, which *Alexander* before had made himself Master of. And thus he re-establish'd a Kingdom over *Asia Minor* and *Syria*, which became a Theatre of many terrible and horrid Tragedies under the *Antiochus's*, &c. who succeeded. This *Asiatic Monarchy* lasted till *Gabinus* the Roman Consul vanquished *Seleucus Cybiosactes*, the last of the *Seleucian* Race, and set up a new Form of Government in the Land, about 57 Years before Christ. So this Kingdom stood about 260 Years. Though others more properly terminate this Monarchy about nine Years before, when

Of the Seleucian Race in Syria, &c.

Pompey

Pompey the Great vanquish'd *Tygranes*, King of *Syria*, and reduced the Country to the Form of a *Roman Province*.

Lysimachus
not successful.

LYSIMACHUS, the last of the four Captains of *Alexander*, who divided his Empire, had not the Fortune of the other three in laying the Foundation, and being first in a *Monarchy*; for he was defeated and slain in Battle by *Seleucus*, who thereby became Master of all his Dominions.

As to the State of the *Jews* during the Periods of the *Grecian* and *Roman Empires*, I have already briefly related it in the fourth Chapter hereof, and therefore need not here repeat it. The next great Revolution in the Fortune of the World let us view in the fourth and last great and universal *Monarchy*, viz. that of the *Roman Empire*.

The Consular
State of
Rome.

AFTER the Abolition of the *Regal Power*, the first State of *Rome*, the *Consulate* was instituted; which was a Power, or Sovereignty with which two Magistrates, annually elected, were invested; the *Senate* was their Council, and they decided all Affairs, but there lay an Appeal to the People; which made this no other than a *Republic* or *Democracy*. The first who enjoy'd this *Consular Dignity* were *L. Junius Brutus*, and *L. Tarquinius Collatinus*, who began their Government *A. M.* 3545, and of *Rome* 244.

The Triumvirate.

THE *Roman Affairs* were administred by the *Consuls* for the Space of about 470 Years; when *Julius Cæsar* form'd the famous *Triumvirate* between himself and *Pompey* and *Crassus*; by which means the whole Power of the *Roman State* became in a manner ingross'd by these three *Potentates*, who divided it among themselves. This laid the first Foundation of the Civil Wars which afterwards broke out between *Pompey* and *Cæsar*, and at length ended in the Destruction of the old *Roman Government*, by changing it from a *Republic* to a *Monarchy*.

The Beginning
of the Roman
Monarchy un-
der Julius
Cæsar.

UNDER this *Republican State*, *Rome*, by Degrees, made herself Mistress of most of the principal Kingdoms and States of the known World, by the *Courage* and successful Enterprizes of her *Consuls* from time to time, but most particularly of *Julius Cæsar*; whose Ambition reach'd to universal Dominion and Sovereignty; which at length he achiev'd, going on conquering and

and to conquer, in all the habitable Parts of *Asia*, *Africa*, and *Europe*, which he effectually reduced to the Obedience of *Rome*; and on his return made a *triumphal Entrance* into the City: The *Senate* and People submitted to him, and made him *Perpetual Dictator*.

THE *Roman State* being thus chang'd to a *Monarchy* in *Julius Cæsar*, he became the first sole Emperor of the World among the *Romans*, and laid the Foundation of the fourth *Monarchy*. He was at last slain in the *Senate House*, in the 56th Year of his Age, and the 44th before Christ. *Octavius*, the Nephew of *Cæsar*, having conquer'd *Brutus* and *Cassius*, was declared *Augustus*, and Master of the *Empire*. His Reign was honour'd with the Birth of our Saviour; he died in the 44th Year thereof, and was succeeded by *Tiberius Cæsar*; and after him succeeded *Caligula*, *Claudius*, *Nero*, *Galba*, *Otho*, *Vitellius*, *Vespasian*, *Titus* and *Domitian*, who was the last of the twelve *Cæsars*. The two greatest Events during this Period were the Crucifixion of our Saviour in the Reign of *Tiberius*, and the Destruction of the Temple and City of *Jerusalem*, and the total *Extirpation* of the *Jewish State* and Nation under *Vespasian* and *Titus* his Son.

The Roman Monarchy under the twelve Cæsars.

AFTER the *Julian Family*, there was a Succession of 31 Emperors from *Nerva*, who succeeded *Domitian* in *A. D.* 96, to *Constantine the Great*, who began to reign *A. D.* 306. He removed the Seat of the Empire from *Rome* to *Byzantium*, which City he built, and call'd it at first *New Rome*, but afterwards *Constantinople*. He divided the Empire among his three Sons, *Constantine*, *Constantius* and *Constans*, and died *May 22.* 337, in the 66th Year of his Age.

The Empire divided by Constantine the Great among his Sons.

OF these three Sons, *Constans* had the *East*, *Asia*, and *Egypt* for his Share; *Constantine* had *Gaul*, *Spain*, and *Great Britain*; and *Constantius* had *Italy*, *Africa*, and *Illyrium*; but *Constans* surviv'd the other two, and became sole Master of the Empire; who dying in the 45th Year of his Age, was succeeded by *Julian the Apostate* in *A. D.* 361, *Jovian* 363, *Valentinian* 364; *Valens* and *Gratian* 375; and at last *Theodosius the Great*, who had defeated the *Goths*, *Alans*, and *Huns*; and was baptiz'd at 44 Years of

The same again divided by Theodosius in the Eastern and Western Empire.

Age, and died at the 60th, and *A. D.* 395. having left the Empire of the *East* to his Son *Arcadius*, and that of the *West* to his Son *Honorius*.

*The Western
Empire under
10 Emperors.*

FROM *Honorius* there are reckon'd about 10 Emperors of the *Western Empire* to *Augustulus* inclusively; who came to the Throne *A. D.* 475. During this Period the Empire was in a declining State, and became a Prey to several *Barbarous Nations*, who continued their Invasions upon it from the Year 400 to 600. The Chief of which were the *Goths*, *Ostrogoths*, *Vandals* and *Lombards*; the *Daci*, *Sarmatæ*, *Heruli*, *Suevi*; the *Picts*, the *Huns*, *Alans*, and *Scythians*: All which were antient People and Nations of *Europe* and *Asia*. Among these

*Of the Goths,
and Ostro-
goths in Italy.*

ODOACER King of the *Heruli* subdued *Augustulus* in the first or second Year of his Reign, and was himself defeated in the 17th Year of his Reign by *Theodoric II.* King of the *Goths*; who succeeded in *A. D.* 493; and began the Reign of the *Ostrogoths*. From him succeeded eight Kings, of whom *Tejas* was the last, who was defeated by *Narses*, *Justinian's* General, in 553; and thus the Kingdom of the *Ostrogoths* in *Italy* ceased after a Continuance of 92 Years.

*The Kingdom
of the Lom-
bards in Italy.*

THIS *Narses*, being disgusted by the *Empress*, &c. call'd the *Lombards* from *Germany* into *Italy*, where they settled and form'd a new *Monarchy*; the first King of which was *Alboin*, who came to the Crown in 568, and the last was *Didier* or *Desiderius* in 774, in all twenty-two Kings. This *Didier* having seiz'd on the Patrimony of the Church, *Charlemagne* came against him, and took him; which put an End to the Kingdom of the *Lombards*, that had lasted 206 Years.

*The Eastern
Empire.*

ARCADIUS, Son to *Theodosius the Great*, succeeded his Father as *Emperor* of the *East*, *A. D.* 395. From him there follow'd a Succession of sixty-four Emperors; of whom *Alexis V.* was the last. Prince *Henry*, Brother to *Baldwin*, Count of *Flanders*, made War upon him, defeated him, and put him to flight; and took the City of *Constantinople*, in *A. D.* 1204. So the *Eastern Branch* of the Empire continued entire 809 Years.

AFTER

AFTER this the *Greeks* falling out with the *French Divisions* and other *Western Christians*, they divided their Empire thereof, between Alexis Comnenus, while *Baldwin* remain'd possess'd of the *Royal City*, Comnenus, and good part of the Empire, which the *Latins* had Lascaris and Baldwin. seiz'd on because the *Greeks* did not reimburse their Charge for restoring young *Alexis* and *Isaac*. By this Means the Empire was divided into three Parts, which after some time were all swallow'd up by the *Turks*.

BALDWIN, Count of *Flanders*, was elected Emperor at *Constantinople* by the *Latins*, A. D. 1204. After him succeeded 13 Emperors; the last of which, *Constantine XIII.* or *XV.* was slain in Battle by the *Turks* under Sultan *Mahomet II*; who ravaged *Greece*, took *Constantinople*, and put an End to the *Christian* Empire there, about A. D. 1455.

ALEXIS COMNENUS, under the aforefaid Division of the Empire, made *Trebisond*, a Town in *Natolia*, on the *Euxine Sea*, his Capital, A. D. 1204; and govern'd over *Cappadocia*, *Paphlagonia*, *Pontus*, and some other Provinces in *Asia Minor*. To him succeeded eight Emperors, of whom the last was *David*. Mean while *Theodorus Lascaris* reign'd at *Adrianople*, and after him four others, of which *Theodorus III.* was the last; in whose time *Mahomet II.* seized both the Empires of *Trebisond* and *Adrianople*.

THE *Greek Empire* being thus totally extinct in that of the *Turks*, let us return to that of the *Latins*; Of *Charlemagne*, who where we find *Charlemagne*, or *Charles the Great*, began the Son to *Pepin* King of *France*, restor'd the Empire of German Empire of the *West*, and remov'd the *Royal Seat* from *Rome* into *Germany*; where he was anointed and crown'd Emperor by Pope *Leo III.* on *Christmas-Day*, A. D. 800. He before had rescued *Italy* from the *Tyranny* of the *Lombards*, and annex'd their Dominions to the Kingdom of the *Franks*. He was at the same time Master of *Germany*, *France*, *Italy*, and Part of *Spain*. He died A. D. 814, in the 72^d Year of his Age. Before his Time *Germany* (like most other Countries of *Europe*) was a Composition of several independent Democracies. But he reduced the whole under his Jurisdiction.

*The Imperial
Families of
Germany.*

THE Carolinian Family continued till the Death of Conrad Duke of Franconia in A. D. 919, when the Crown devolv'd to the Saxons in Henry Duke of Saxony, where the Imperial Dignity continued till the Death of Henry II. A. D. 1024. Then it again return'd to the Carolinian Family in Conrad II. where it remain'd till A. D. 1125. when it again reverted to the Saxons in Lotharius Duke of Saxony; on whose Death the Crown was settled in the Swabian Family, when Conrad III. Duke of Swabia was elected Emperor, A. D. 1138. where it continued (though not without Interruption) till the Execution of Conradin, the last of that Family. Whereupon Germany was reduced to Anarchy and Confusion, till A. D. 1273, when Rudolph, Earl of Habsburg, and Landgrave of Alsace, was unanimously chosen Emperor; from whom descended Frederick III. Duke of Austria, who was crown'd A. D. 1490, and in whose House the Imperial Dignity has continued to this Day.

*Short History
of Spain.*

SPAIN was antiently inhabited by the Gallic Celts, Rhodians, Phœnicians, Cantabrians, and Carthaginians; the latter of which being dispossessed by the Romans, Spain became a Roman Province, and so continued till the Declension of the Western Empire, upon which it was over-run first by the Vandals, then by the Suevians, and at last the Goths obtain'd the Government of the Emperor Honorius, where they reign'd from Adolph the first King, who enter'd Spain A. D. 411, till A. D. 713, Roderick the 34th and last King was defeated by the African Saracens, or Moors, or Arabians, who were all the same People. The Moors divided Spain into several petty Kingdoms, which continued between 7 and 800 Years, viz. to the Year 1492; in which they were totally extirpated by Ferdinand V. King of Castile. The Suevian Kings were 10; they reign'd in Galicia from A. D. 408 to 585. The Kings of Leon were 24; who reign'd from A. D. 717 to 1028. The Kings of Granada were 22; who reign'd from A. D. 1238 to 1492. The Kings of Arragon 20; they reign'd from A. D. 1037 to 1516. The Kings of Navarre 38; they reign'd from A. D. 722. to Henry IV. of France,

France, 1589. The Kings of *Castile* reign'd from A. D. 1038 to this Time.

PORTUGAL having been a *Roman Province* Of *Portugal*. till the Declension of the *Western Empire*, and being thereupon possessed by the *Goths*, fell with the rest of *Spain* into the Hands of the *Moors*, A. D. 713; under whom it continued till 1100, when it was recover'd by *Henry* of *Burgundy*; whose Son *Alphonsus* shook off the *Spanish Yoke*, and was proclaim'd King of *Portugal*, A. D. 1139. It continued a separate Kingdom till 1580, when *Philip II.* King of *Spain* united it to *Spain*. But in 1640 the *Portuguese* again shook off the *Spanish Yoke*, and chose for their King the Duke of *Braganza*, under the Name of *John IV.* whose Posterity enjoys the Crown to this Day.

FRANCE was antiently inhabited by the *Gauls*, Of *France*. who in a Plurality of independent States were conquer'd by the *Romans* in the Time of *Julius Cæsar*, and *France* became a *Roman Province*; which it continued to be till about 500 Years afterwards, when it was over-run by the *Goths* and *Burgundians*, and at last by the *Franks*, a People of *Germany*, who chose *Pharamund* for their first King A. D. 424: From whose Kinsman and Successor *Meroveus*, came the *Merovingian Race*; which endured till *Charles the Great*, the Son of *Pepin*, founded the *Carlovingian Family* A. D. 770, who enjoy'd the Crown till A. D. 987. *Hugh Capet* was made King, the first of the present (from him call'd the) *Capetian Race* of 30 Kings, the last of whom is the present *French King Lewis XV.*

ITALY, on the Dissolution of the *Civil Monarchy*, Of *Italy*: by degrees acquir'd a *Spiritual one* or *Hierarchy*, or Government by Popes. For tho' the *Popes* had not the Administration of the *Civil Power* from the Beginning, yet they have had it for a long time past; and are said not only to over-see as *Bishops*, but to reign as *secular Princes*. And the *Ecclesiastical State* is absolutely the *Pope's Kingdom*, which he governs by himself and *Legates*, as a *temporal Lord*, since the eighth Century, that *Pepin King of France* and his Son *Charles* gave it to the *Church*. As to the other Parts of *Italy*, they are divided into several *Dutchies*, as *Savoy*, *Tuscany*, *Milan*, &c. *Republics*, as *Venice*,
X 2 Genoa,

Genoa, &c. Kingdoms, as Naples, Sicily, and Sardinia.

Of Hungary. **HUNGARY** was in old times subject to the *Huns*, till about the eighth Century a *Scythian Nation* call'd *Hungari* dislodged them, possess'd and gave Name to the Country. They were governed by *Chiefs* or *Dukes*, till the Time of *St. Stephen*, who was crown'd King of *Hungary* *A. D.* 1000, after whom succeeded a Regency of 45 or 46 Kings, to the present Time; *Joseph* the late Emperor of *Germany* being crown'd King of *Hungary*, *A. D.* 1687.

Of Swisserland. **SWISSERLAND**, upon the Decay of the *Roman Empire*, maintain'd its Liberty under the Kings of *Burgundy*, *Austria*, and *France*, &c. who have interchangeably possessed and contended for it for 500 Years past. Its present State is a *Republic* of 13 *Cantons* or *Distriets*, seven of which are govern'd by an *Aristocracy*, none but the *Burghers* having any Share in the Government. The other six are *Democratical*, all the Inhabitants being admitted to the Government.

Of Belgium, or the Netherlands. **BELGIUM**, which contains the *Netherlands*, or Countries of *Holland* and *Flanders*, was antiently a Part of the *Roman Empire*, being subdued by *Julius Cæsar* and *Augustus*; under which it continued till the Time of *Theodosius*, when the Empire being overrun, several People of *Germany* made Descents upon it one after another. But in process of Time they recover'd their Liberty, and all this Country was divided into 17 Provinces; some govern'd by *Dukes*, others by *Counts*, one by a *Marquis*, and five by *Lords*, of which *Friesland* was one; which, having shook off the Yoke, was govern'd by Kings for near 400 Years. *Holland* and *Zealand* were govern'd by *Counts* from *A. D.* 863 to 1558, when *Phillip II.* of *Spain* was their last Count; from whom they revolted, and form'd themselves into their present Commonwealth in the Union of *Utrecht*, *A. D.* 1579. *Flanders* was under *Earls* from *A. D.* 621 to 860, when *Baldwin* was made their first Count; by which *Sovereigns* they were after govern'd till they fell to the House of *Austria* under the Emperor *Charles V.* and then to the Crown of *Spain* under his Son *Philip II.* to which they continue still to pay Obedience.

MUSCOVY

MUSCOVY is, as to its History, involv'd in *Ignorance and Obscurity*. Prince *Woldomir* introduced Christianity here *A. D.* 988. After this we know little till they became a Prey to the *Tartars*, when their Prince *George* was defeated by the *Tartarian* King *Batto*, *A. D.* 1273; who ruled them under hard Terms, till *A. D.* 1450 Prince *John* deliver'd them, and erected the numerous petty Principalities into one Body. Thus they continued under various Fortunes, till the Nobility chose *Michael Feodorowitz*, who, by his Accession to the Throne 1613, began the Race of *Alexiewitz*, the present Royal Family.

POLAND being abdicated by its antient Inhabitants, fell in *A. D.* 550 into the Hands of a vagrant People, under the Conduct of one *Lechus*, who founded the Government of the *Lechidæ*, which continued till the *Woiwods* or 12 Governors, who polish'd this rude and barbarous People; but at last falling into Parties, the People were obliged to chuse a King, who was *Gracus*, who restored the Republic to its Tranquility *A. D.* 700. In *A. D.* 820 the *Poles* exalted to the Throne one *Piastrum* a *Wheelwright*: His Posterity, call'd the *Piastrs*, long enjoy'd it; till at last, *A. D.* 1382, the Crown devolv'd to *Jagello* Duke of *Lithuania*, who founded the *Jagellonian* Family, which became extinct *A. D.* 1548, when their Kings became *Elective*; of which *Henry de Valois*, Duke of *Anjou*, was the first.

SWEDEN is said to have been in the State of a Kingdom soon after the Deluge, which is said to have continued till the 100th Year of *Rome*, when it became a Republic, which lasted 250 Years. Monarchy was re-establish'd by *Eric II.* whose Posterity continued till *A. D.* 455, through 21 Successors. In *A. D.* 829, the *Swedes* embraced Christianity. In *A. D.* 1396, *Sweden*, *Norway*, and *Denmark* were united in the Union of *Calmar*, which lasted not long: For in *A. D.* 1449 *Norway* and *Denmark* chose a King, whose Posterity had several various Adventures with the *Swedes*, who were miserably harrass'd by them, till *A. D.* 1528, when *Gustavus Ericson* shook off the *Danish* Yoke, and was proclaim'd King; and in 1544 the Crown was made hereditary to his Family, wherein it continues to this Day.

Of Denmark.

DENMARK is one of the most ancient Kingdoms of *Europe*. One *Danus* or *Dan* is reported to be the first of their Kings, who headed the *Cimbri* and *Goths* when they invaded and ravaged *Germany*. About our Saviour's Birth *Frotho* III. govern'd them. *A. D.* 846 *Eric* I. began to reign, and introduced *Christianity*. In 1012 *Canute* II. came to the Crown, who afterwards was also King of *England*, *Sweden*, *Norway*, &c. He was buried at *Winchester* in 1036. In 1396 was the Union of *Norway*, *Denmark*, and *Sweden* under *Margaret* Queen of *Norway*: And in *A. D.* 1449 *Christian* Earl of *Oldenburg* was declared King of the *Danes* and *Norwegians*, in whose Family those two Crowns have remained ever since.

Of Norway.

NORWAY in its original State is very obscure. In *A. M.* 3960 *Frotho* was King, who was succeeded by 16 Kings, the last of which, *Lodbrog*, was contemporary with *Charlemagne*. *Sigifordus* reign'd *A. D.* 798; and in 868 *Harold Harfoger* was their sole King, who died 931, and his Race were Kings of *Norway* 500 Years. In *A. D.* 1396 was the Union of the three Kingdoms, as before mention'd, and which remains to this Day between *Norway* and *Denmark*.

Of the Rise of the Mahometan Empire.

IF now we return and review the Modern History of *Asia*, we shall there meet with one of the greatest Revolutions that ever happen'd in the World; I mean that occasioned by the Impostor *Mahomet*, which gave Birth to an Empire which, in 80 Years, extended itself over more Kingdoms and Countries than did the *Roman* in 800. And though it continued not above 300 Years, yet out of its Ashes have sprung many others, of which there are three still remaining, the largest and most potent Empires in the World, viz. the *Turkish*, *Persian*, and that of the *Mogul*.

The Caliphs.

AFTER the Impostor's Death, *Ebubezer* his Father-in-law, and one of his chief Captains, took upon him the Imperial Power, *A. D.* 622, who was succeeded by 24 others, by the Name of *Caliphs*, the last of which was *Mahomet* IV. who ended his Reign about *A. D.* 872. These *Caliphs*, or *Saracen* Emperors, by Degrees extended their Conquests over *Persia*, *Egypt*, *Palestine*, *Syria*, all *Barbary*, *Rhodes*, *Cyprus*,

Cyprus, Asia Minor, Armenia, Greece, Constantinople, all Italy, &c. But about 325 Years after the Impostor's Death, the Governors of the Provinces took the Regal Power on themselves, and left the *Caliphs* nothing but the Shadow of their *Authority*. At last they divided into *Caliphs* and *Anti-Caliphs*, till the *Tartars* put an end to the Pretensions of both, under the famous Emperor *Tamerlane the Great*.

THE *TURKS* were a People first known by the Name *Turcæ*, about the Lake of *Mæotis*, and not much heard of till *A. D.* 577. In 619 they are mentioned at the Siege of *Constantinople*, under the Command of the *Persians*. After which they set up for themselves, and in *A. D.* 736 invaded *Albania* and other Countries on the *Caspian* and *Euxine* Sea. In 844 they possess'd themselves of *Armenia Major*, and call'd it *Turcomania*. Here they lived in no great Figure, till *Mahomet* the Sultan of *Persia*, rebelling against the *Caliph* of *Babylon*, call'd them to his Assistance; who came under *Taugrolipix* their Leader, and procured the Sultan a signal Victory.

The Original of the Turks.

THE said Sultan *Mahomet* not giving them the promised Rewards, nor yet leave to return home, they, being justly enraged, began to mutiny, and plunder'd the Country, at last fought with, and defeated the Sultan and kill'd him. His Army, dissatisfied with his Conduct, join'd with the *Turks*, and made *Tangrolipix* Sultan of *Persia*, *A. D.* 1030. His Race continued till *A. D.* 1198, when *Cassanes*, the last of the *Turkish* Line, came to the Crown. He was vanquish'd by the *Cham* of *Tartary* in 1202, when the *Tartarian* Race began in *Cingis Chan*. *Tamerlane the Great* conquer'd the whole Empire, whose Son succeeded in *A. D.* 1405, and his Line became extinct in *Joancha*, who was defeated in *A. D.* 1472, by *Ussan Cassan* an *Armenian* Prince, whose Posterity continued till *Alamat* or *Hagarat*; the last whereof was defeated, *A. D.* 1505, by *Ismael Sophi*, who then founded the *Sophian* Family, who continue Monarchs of *Persia* to the present Time.

The Rise of the Persian Empire from the Turks.

OTTOMAN, the Son of *Ethrogul*, the Son of *Solyman* (who was drove out of *Persia* by the *Tartars*) was about *A. D.* 1290 saluted with the Title of

Of the Origin of the Ottoman Empire.

Governor of the *Oguzian Turks* in *Asia*, and soon after with that of the Lord *Ottoman* or *Osman*. This great Prince afterwards took and spoil'd the rich City *Nice*; and the chief Sultan dying *A. D.* 1300, *Ottoman* was advanced in his stead, and then founded the great *Turkish* Empire in the *East* under the *Ottoman* Race, who have continued to this Day in a Succession of 24 or 25 Sultans from him: But the famous *Persian* General *Thamas Kouli Can* has given them many shocking Strokes of late, and his Armies are at this Time very victorious against them; on which Account the *Persians* have deposed their late *Sophi*, and elected him their Emperor or *Sophi*.

*Of the Turkish
Kingdom in
Asia.*

THE *Turkish* Kingdom of *Iconium* began *A. D.* 1072 in *Cutlumeses*, a Relation to *Taugrolipix*, who possess'd himself of that Country, and afterwards with several others in *Asia Minor*. He had 15 Successors, of whom *Melec* was the last in 1261, who was driven into Exile, and thereby a way was made for the *Ottoman* Line. We read of the Races of other *Turkish* Kings in *Asia Minor* at the Beginning of their Empire, but they all gave way at last to the *Ottoman* Line. The chief of these was the Race of *Turkish* Kings at *Damascus*, which *Taugrolipix* founded in the Persons of his Kinsmen *Melech* and *Ducat*, who began to reign over *Syria*, &c. *A. D.* 1075. After them succeeded 9 others, till the last, viz. *Saphradine*, was taken by the *Tartars*, *A. D.* 1262; who, on the Death of *Tamerlane*, were obliged to quit it to the *Mamalucks*, a military Order of People in *Egypt* under the *Saracens*, which subdued *Syria* and *Egypt*, and kept *Damascus* till *A. D.* 1516, when it was again recovered by the *Turks*. The Seat of the *Turkish* Empire hath been at *Constantinople* since *Mahomet II.* and eighth of the *Ottoman* Family took it *A. D.* 1455, or thenabouts.

The Mamelucks, who.

*Of Great
Tartary, and
its History.*

GREAT TARTARY (or more rightly *TARTARY*) is said to have for its first Emperor *Cingis Chan*; and tho' the Government was absolute and tyrannical, yet 'twas elective; for the *Grandees* of the Country chose his Son *Occady* to succeed him about *A. D.* 1168. In his Time the Name of the *Tartars* was first known and became formidable in *Europe*.

To

To him succeeded *Zain-Chan* or *Bar-Cham*, then *Gino-Cham*; and by his Daughter the Empire was convey'd to her Husband *TAMERLANE* the Great, who made indeed so great a Figure in the World, that he is reckon'd equal to *Cyrus* or *Alexander*. He was born *A. D.* 1335. He was Master of all the Learning of those Days, and was of a most gentle, mild, and affable Temper, attended with a natural Greatness and Heroic Spirit and Valour. He was an Enemy to Idolatry, and gave Liberty of Conscience to all who worshipped GOD, the Creator of all Things; wherefore GOD blessed him with wonderful Success in his Enterprizes: For, under his Christian General *Axalla*, he subdued the *Muscovites*; after that *China*, and made the Kings thereof tributary to him, and destroyed Idolatry there. After this he defeated the *Turks*, and took their Sultan *Bajazet* Prisoner, and reproached him for fighting against the Christian Interest. Hereupon most of the Provinces of *Asia* submitted to this new Conqueror: Then he made War upon the Sultan of *Egypt*, and conquer'd the Country, with the greatest Part of *Africa*, *Syria*, *Judæa*, &c. and paid the highest Reverence and Devotion to *Christ* at his Sepulchre in *Jerusalem*. He extended his Conquest to the *Indies*, and founded there the Empire of the *Moguls*. He died in the 66th Year of his Age, *A. D.* 1425. The great *Maurice* of *Nassau*, Prince of *Orange*, always carried the History of him in his Pocket, and preferr'd it to *Cæsar's Commentaries*, or *Xenophon's Cyropædia*. 'Tis said he subdued more Countries in 8 Years, than the *Romans* did in 800. After him there were about six Successors, the last of whom was *Demir-Cham* 1540, or thereabouts. In Eastern *Tartary* *Bobun* names a Catalogue of six Kings, who reign'd from *A. D.* 1550 to *Cham-Hi*, the last, who began to reign over *Tartary* and *China* in 1661, and in 1680 he perfected the Conquest of *China*, and was reckon'd to be the greatest Prince in the World.

*Short History
of Tamerlane
the Great.*

THE Empire of the *MOGULS* in *India* was founded, as I said, by *Tamerlane*, who was the first Emperor thereof. His Son *Miracha* succeeded in *A. D.*

*Of the Empire
of the Moguls.*

A. D. 1405. After him nine others succeeded to the Crown; of which the last *Bardour-Chah* began to reign *A. D. 1708.*

Of the Chinese
History.

THE CHINESE suppose that the first Man was their first Governor, was call'd *Puoncuus*, and had his Origin from somewhat like an Egg. How this Country was first peopled is uncertain. The first King they speak of with any Certainty is *Fohius* or *Fohi*, who some think was *Noah*. 'Tis said he was succeeded by *Xinungus* 2730 Years before *Christ*. *Yous* was the last of the elected Emperors, and founded the Imperial Race of *Hiaa*, which was about 2207 Years before *Christ*. This continued in a Line of 17 Emperors; to which the Family of *Xanga* succeeded, about 1766 Years before *Christ*. This produced 28 Emperors, and lasted till about 1122 Years before *Christ*; when the Family of *Cheva* succeeded, which produced 37 Emperors, and ended 246 Years before *Christ*. This was succeeded by the Family of *Civa* or *Xius*, in the Year before *Christ* 206: This by the Family of *Hana*, which lasted to *A. D. 264*. This was subdued by that of *Cyna*, which lasted till *A. D. 419*, in 5 Kings. Then the Family of *Tanga* follow'd, which lasted till *A. D. 618*. These were succeeded by the Race of *Sunga*, which govern'd till *A. D. 1278*, when the *Tartars*, after 73 Years War, subdued the *Empire*, extirpated the Family, and founded a new one, call'd *Ivena*, which lasted till *A. D. 1368*; when the *Tartars* were expell'd, and one *Xunguons* founded the Race of *Taicinga*, who held the Throne till *A. D. 1644*; when the *Tartars* again conquer'd the Country, and set up their Great Cham *Xunchius*, who was succeeded by his Son *Cham-Hi*, in *A. D. 1661*, as before related in the History of *Great Tartary*.

Of Japan.

JAPAN is a mighty Empire, the Court far outshining any in *Europe*; but because this *Island* was not discover'd till the 16th Century, or about *A. D. 1540*, we have no Account of the Genealogy and Succession of Emperors, but that they are great and absolute Lords, and are adored by their Subjects.

IN *AMERICA* the several Nations and Coun- Of American
tries discover'd by the *Europeans* are under their *Governments*.
Government: Thus *Mexico*, great Part of *Granada*,
Terra Firma, *Peru*, *Chili*, Part of *Paraguay*, &c.
belong to the *Spaniards*: And *New England*, *York*,
Pensylvania, *Fersy*, *Maryland*, *Virginia*, *Carolina*, &c.
to the *English*: And other Countries and Islands to
the *French*, *Dutch*, &c.





Of PHYSIOLOGY, or NATURAL PHILOSOPHY.

Physiology defined.



PHYSIOLOGY, according to its Derivation, signifies a *Discourse concerning Nature*, or the *Nature of Bodies* in general; and hence it is used to denote that Science or Study which enquires into and investigates the Causes, Properties and Effects of all *Natural Bodies* objected to our Sight, or falling under the Cognizance of any of our Senses. For this Reason this Study has long been call'd *Physics*, and *Philosophy*, or more commonly, *Natural Philosophy*; and those who are skill'd therein are call'd *Physiologists*, *Naturalists*, and *Natural Philosophers*.

Its Subject.

THE Subject of this most excellent Science being no less than the wide and almost boundless Field of *Sensible Nature*, the Science itself must needs be *exceeding great*, and of the *last Importance*, of which we shall proceed to give the following short yet comprehensive Sketch.

Its Parts.
Somatology.

Uranology.

Aerology.
Geology.

NATURAL PHILOSOPHY then may be properly divided into *Four Parts*, viz. (1.) *Somatology*, which contemplates the Nature of *Matter* in general, and its Properties, Accidents and various Modifications in all *Natural Bodies*. (2.) *Uranology*, which discourseth of the *Constitution of the Heavens*, and the great Bodies of the Sun, Moon and Planets therein. (3.) *Aerology*, which treats of the Nature of the *Atmosphere*, and the various *Meteors* thereof. (4.) *Geology*, which takes a View of the *Earth* and *Sea*, with all their various Productions.

Of

Of SOMATOLOGY.

SOMATOLOGY is (according to its *Etymon*) *Of Somatology.* the Doctrine of *Natural Bodies*, and considers the *Original* and *Essential Properties* of *Matter*, of which they are variously composed.

MATTER itself is that which we generally call *Of Matter.* the *Substance* of Things, or *that* of which all Things do consist, under different *Forms* and *Modes*.

THE Properties of *Matter* or *Body* are twofold, *Its Properties,* viz. (1.) *Essential* and *common* to all Bodies. (2.) *Specific* and *Accidental*, which happen to Bodies not necessarily from the *Nature* of *Matter*, but *casually* and *comparatively* only. *Essential or Accidental.*

THE *Essential Properties* of all Bodies or *Matter* are these, (1.) *Extension*, for all *Matter* is *extended*. *Essential Properties.* (2.) *Solidity*, for every Particle of *Matter* is *impenetrable*. (3.) *Divisibility*, for all *Matter* may be *divided* into still lesser Parts. (4.) *Mobility*, for all Bodies are capable of *Motion*. (5.) *Figurability*, all Bodies having some *Form* or *Figure*. (6.) *Gravity*, for all Bodies have some *Weight*. (7.) *Mensurability*, for all Bodies have some *Dimensions*. (8.) *Inactivity*, for no *Matter* can act or move of itself. (9.) *Ubiquity*, for all Bodies occupy some *Place*. (10.) *Durability*, for no Part of *Matter* can be *annihilated*.

EXTENSION is the Quantity of *Bulk* or *Size* *Of Extension.* into which the Particles of *Matter* are disposed, or *extended*; for there is no Body which has not *Length*, *Breadth* and *Thickness*, which make what we call the *Extension* of Bodies.

SOLIDITY is that Property of *Body*, whereby *Solidity.* it excludes all others out of the *Place* which it possesseth; for no two Bodies can possibly be in one and the same *Place* at the same time. Hence the *Matter* of the *softest* Bodies is equally *solid* with that of the *hardest*: Thus a *cubic Inch* of *Water* will no more than a *cubic Inch* of *Adamant* be compress'd into less than a *cubic Inch* of *Space*.

DIVISIBILITY is a Property of *Matter* *Divisibility.* which follows from the last; for since two Particles of *Body* cannot exist together, or in the same *Place*,
'tis

'tis necessary they should exist *separately*, or in *different Places*; and so may be consider'd as *distinct* or *separate* from each other, which is all that is meant by their being *divided*. The *actual* Division of Matter is very surprizing, as is manifest from the Nature of *Odours*, *Perfumes*, *Tinctures*, *Light*, and several other Experiments on Bodies. And the *Infinite Divisibility* of Matter is easily proved by *Geometry*.

Mobility.

MOBILITY is a Property which follows from the *Divisibility* of Matter, and its being *finite*; for since Matter is divisible into Parts, and does not fill all Space, 'tis possible for one Part of Matter to be made to *change its Place*, or be removed from one Part of absolute Space to another, which is call'd *Motion*, or *local Motion* of a Body.

Figurability.

FIGURABILITY is that universal Property of Body, whereby it is necessitated to appear in or put on some Shape or Form or other; for since all Particles of Matter are *finite*, they must be contain'd within certain Bounds or Extremities, which must have some kind of *Mode* or *Fashion*; which as it results from mere Contingency, is infinitely various, and is call'd the *Formality* or *Modification* of Bodies.

Gravity and Attraction.

GRAVITY is that universal Disposition of Matter whereby a *lesser Part* is carried towards the Center of any *greater Part*; thus all Parts of Matter, or Bodies on the *Earth's* huge Surface, have a Tendency to descend to its Center or Middle Part: And this is call'd their *Weight*; and *Gravitation* in the lesser Body, but *Attraction* in the greater; because it does, as it were, *attract* and *draw* that lesser Body to itself. Some distinguish *Attraction* into that of *Cohesion* and *Gravitation*. *Attraction* of *Cohesion* is that whereby very *minute Bodies*, or the Particles of the *same Body* are mutually drawn towards one another, and made to *cohere* and *stick* together. The Sphere of this *Attraction* is very small, for it acts only upon *Contact*, or at very small Distances, and in Proportion to the Surfaces of the *attracting Bodies*. *Attraction* of *Gravitation* is that whereby larger Bodies attract and act upon one another, whose Sphere of *Attraction* is very great. This *Attraction* is always proportional to the *Quantity of Matter* in Bodies, and *decreases* as the

Squares of the Distances between the Centers of attracting Bodies increase.

ELECTRICITY is a kind of *Attraction* and *Electricity*. *Repulsion* of very light Bodies alternately, by certain polish'd Surfaces chafed or heated by Rubbing, or *Friction*: Thus *Glass*, *Sealing-Wax*, *Amber*, and *Precious Stones*, attract and repel *Feathers*, *Hairs*, *Straws* and other light Bodies at considerable Distances, as known by common Experiments. Note, if a Glass Tube be emptied of Air, it loses its *Electrical Quality*.

MAGNETISM is another very surprising Species of *Attraction*, which that *Fossil* call'd the *Load-stone* is endow'd with. Every one knows its strange Power of *attracting* and *repelling Iron*; and the Virtue it communicates to the Mariner's Compass, whereby it is determin'd to point to, or very near the *North Pole*. Note, the *Magnet* loses its Quality by being made red-hot in the Fire. *Magnetism*:

GRAVITY is distinguished into *Absolute* and *Absolute and Specific*. *Absolute Gravity* is that which every Body *Specific Gravity* has in itself *simply* consider'd; *Specific Gravity* is that which is consider'd in a Body compar'd with the Gravity of any other, and is said to be either *greater*, *equal* to, or *lesser* than it: Thus if the Gravity of *fine Gold* be 11, and that of *fine Silver* 6, the *Specific Gravities* of Gold and Silver are said to be to each other as 11 to 6. Note, in Spaces *void of Air* all Bodies gravitate alike; or a *Feather* and a *Stone*, being let fall together, descend with equal *Velocity* or *Swiftness*.

MENSURABILITY is another universal Property of Bodies; for as all Bodies are extended into the *Dimensions* of *Length*, *Breadth*, and *Thickness*, so it is possible for the Contents or Quantity of Space included within those *Dimensions*, or under the *Extremities* of those Bodies, to be compared, and the *Ratio* or *Proportion* between them found and determin'd; which is call'd the *Mensuration*, or *Measuring* of Bodies. *Mensurability*.

INACTIVITY or *Passiveness* of Matter, is its *Inactivity*. Disposition to abide or continue in its State of *Motion* or *Rest*, till it is made to alter the same by the *Action* of

of some external Force. And from this Principle are deduc'd those *Laws of Motion*, which are call'd the *Laws of Nature* by Sir Isaac Newton, viz.

*Of the Laws
of Nature.*

LAW I. All Bodies continue in their State of *Rest* or *Motion*, uniformly in a *right Line*, till they are obliged to change that State by the Impression of external Forces. Thus a *Wheel* whirl'd round would always continue that circular Motion, were it not for the *Resistance* it meets with from the *Air*, and *Friction* of the *Axle*.

LAW II. All *Change* of Motion is proportional to the *Power* of the Force which causes it, and in the same *Direction* with the said Force. This *Law* is as evident as that every *Effect* is proportionable to its *Cause*.

LAW III. *Re-action* is always equal and contrary to *Action*; for when one Body acts on another, that other Body *re-acts* with *equal Force* upon the first, and in a *contrary Direction*. Thus when a *Sledge* strikes the *Anvil*, the *Anvil* returns an *equal Stroke* on the *Sledge*, and makes it rebound. So when an *Horse* draws a *Stone* with a *Rope*, the *Rope* being equally strain'd throughout, plainly argues the *Stone* stretches it equally with the *Horse*, and therefore draws the *Horse* as much as the *Horse* draws it; and therefore since these Forces are equal and contrary, they would destroy one another, *i. e.* neither *Horse* nor *Stone* would move, were it not that the *Horse* obtains an additional Force, by pushing or thrusting himself forwards against the *Ground*.

Ubiquity.

UBIETY is that *Affection* of all Bodies, whereby they necessarily take up and possess some *Place*, or Part of *Space*.

Space.

SPACE is a mere *Void*, infinitely extended every Way; or it is that Part of the Universe in which *nothing exists*, or is entirely *empty of all Matter*. And though all Bodies must occupy or fill some Part of this *infinite Void* of Space, and which is call'd their *Place*; yet since Matter is not *infinite*, it cannot fill *infinite Space* completely, but there will be some *Interstices* of *empty Space*, which the Philosophers call a *Vacuum*, though the *French* (who have a *Superstitious Philosophy* as well as *Religion*) are absurd enough to deny this most evident Truth.

A Vacuum.

DURA-

DURABILITY, or *Duration of Matter*, may be reckon'd another of its Properties; since 'tis certain, that though the *Form* and *Texture* of Bodies may be any how *destroy'd* and *chang'd*, yet their *Substance* cannot be *destroy'd*, *chang'd*, nor *diminish'd* in the least; for to *annihilate* or reduce *Matter* to mere *Nothing* is as much an *Impossibility*, as to produce it from mere *Nothing*; and both in the Nature of Things as absurd to suppose, as *Motion* in an *absolute Plenum*, or any other *Inconsistency* imaginable.

THE *Specific* or *Accidental Properties*, which are call'd the *Qualities of Natural Bodies*, are next to be considered, and are these, viz. (1.) *Light*. (2.) *Colours*. (3.) *Sound*. (4.) *Density* and *Rarity*. (5.) *Transparency* and *Opacity*. (6.) *Hardness* and *Softness*. (7.) *Rigidity* and *Flexibility*. (8.) *Consistence* and *Fluidity*. (9.) *Heat* and *Cold*. (10.) *Humidity* and *Siccidity*. (11.) *Elasticity*. (12.) *Odours* and *Sapours*.

LIGHT is the *Quality* of that sort of Matter we call *Fire*, which renders all *Objects* from whence it proceeds *visible*, as well as those which receive it. It consists of very small *Particles*, which come from the *luminous* or *radiant Body* in right *Lines* to the *Eyes*, with such an *incredible Velocity*, that the *Light* arrives to us from the *Sun* in about seven *Minutes* and a half, which is about 81000000 *Miles*, which is near 200000 *Miles* in a *Second* of *Time*. The *Surfaces* of most *Bodies* *reflect Light*, by which means they become *visible* and *colour'd*; for those which reflect none appear *dark* and *black*. *Light* in passing through any *Medium*, as *Air*, *Water*, *Glass*, &c. is *refracted*, or broke out of its strait *Course* into another, which is nearer the *Perpendicular* of the *Surface*, if a *thicker Medium*; but farther from it, if into a *thinner Medium*. And this *Refrangibility* of a *Ray of Light* is different in the several *Parts* of it, according to the *different Colours* contain'd therein; of which we shall next speak.

COLOUR is that *Quality* of *Bodies* whereby they appear of some certain *Hue* or *Complexion*; and which is better known than described. The *Colours* of *Bodies* are all of them from the *Rays of Light* originally, and exist therein in the following *Order*; 1 *Red*, 2 *Orange*,

Orange, 3 *Yellow*, 4 *Green*, 5 *Blue*, 6 *Indigo*, 7 *Violet*. When Light is refracted, as through a Prism, &c. the *Red-colour'd Rays* fall lowest, and the *Violet* the highest, the others fill the intermediate Spaces; all which are, in respect of Quantity, in a *Musical* or *Harmonical Ratio*; and Bodies only appear *Red*, *Yellow*, *Blue*, &c. because the Matter of which they consist reflects a greater Quantity of *Red*, *Yellow*, *Blue*, &c. Rays than of others; and those Bodies which reflect promiscuously all the Rays which fall on them appear *White*; and those which reflect none appear *Black*, as has been said.

Sound.

SOUND is an *Effect* caused by striking of a *sonorous* Body; for the tremulous Motion of the Parts occasion'd thereby agitates the Air, and produces such *Undulations* or *Pulses* thereof as are like to *Waves* in Water; these striking on the Drum of the Ear excite the Idea of *Sound* in the Brain by means of the *Optic Nerve*. It is propagated in *concentric Spheres* around the *sounding Body*. The *Air* is the *Medium* of *Sound*, since none can be produced in an *exhausted Receiver* in an *Air-Pump*. *Sound* flies at the rate of 1142 Feet in a *Second* of Time; and may be heard at the Distance of 180 or 200 Miles. *Echo* is the *Reverberation* or *Repercussion* of a *Wave* or *Pulse* of Air from the Surface of Obstacles, as *Vaults*, &c. whence flying back, it strikes our Ears with the same, but more *obtusè* *Sound* than the first. Of *Sounds*, there is great Variety of *Tones*, *Tunes*, or *Notes*, with respect to *Acuteness* and *Gravity*; some of which being pleasant and agreeable, are call'd *Concords*, the others *Discords*; from a various and artful Composition of which arises the *Heavenly Art of Music*.

Echo.

*Density and
Rarity.*

DENSITY and *RARITY* of Bodies are commonly understood of their greater or lesser Quantity of Matter contain'd under the same Bulk, and therefore the *Density* of Bodies is in a *Ratio* compounded of the *direct Ratio* of their Quantities of Matter, and a *reciprocal Ratio* of their Bulks. Thus if A has 8 Parts of Matter, and 5 Degrees of Magnitude, and B has 2 Parts of Matter, and 10 Degrees of Bulk, then the Density of the Body A will be to that of B, as 2×5 to 8×10 , that is, as 10 to 80, or as 1 to 8. The

Densi-

Density of Bodies is increased by *Heat*, which by dividing and expanding the Particles of Bodies, does attenuate and rarify them, and this is call'd *Rarification*. On the contrary, *Cold*, by uniting and combining the same Particles, doth *thicken* and *condense* them, and this is call'd *Condensation*, and in some Cases *Coagulation*.

TRANSPARENCY is that Quality in Bodies whereby they transmit Light through their Substance, and by which means they become thoroughly enlightened, and Objects are visible thro' them. Such Bodies are said to be *transparent*, *pellucid*, or *diaphanous*, as *Water*, *Glass*, *Crystal*, &c. *Transparency*

OPACITY is the opposite Quality of Bodies, and those Bodies are said to be *opaque*, whose Substance is dark and not transparent, and is occasion'd by the Light's being obstructed, or deflected from a *right Passage* through them. *Opacity*

HARDNESS is a Quality of some Bodies, arising from the mutual Attraction of the most minute primogenial Particles of Matter, whereby they firmly cohere, and are consolidated so close together, that they will not yield to the *Touch*. And the nearer the *Figure* of these Particles approaches to the five *Regular Bodies*, the stronger will be the *Attraction*, and the greater their *Cohesion*, and the *Firmity* or *Hardness* of the Body thence arising. *Hardness*

SOFTNESS is such a *Texture* of Bodies, when they yield to the *Impression* of the Finger, and this in various Degrees, the lowest of which is *Liquidity*. *Softness*

RIGIDITY or *Stiffness*, and *FLEXIBILITY* or *Pliableness* in Bodies, do likewise depend on the *Size*, *Shape*, and peculiar *Texture* of the *Particles* or *Corpuscles* of Bodies, of which little certain can be said. *Rigidity*

FIXITY or *Consistence* is a Quality of Bodies, whereby their Particles do naturally keep the same Position to each other, and are not to be moved or separated from one another but by some coercive external Force. This also results from the *Figure*, *Attraction*, *Contact*, &c. of the *Constituent Particles*. *Fixity*

FLUIDITY is that State of Bodies, by which their Particles are always in a *Flow*, and are disposed *Fluidity*

to move indifferently in any Direction upon the least *Impression*. This proceeds from the exceeding *Smallness*, *Roundness* and *Lubricity* of the constituent Particles thereof; as of *Fire*, *Water*, &c. *Fluids* and *Liquids* differ in this, that the latter *wetteth* or *sticketh* to the Finger or Part which touches it, whereas the former doth not; as *Sand*, &c. is a *Fluid*, but not a *Liquid*.

Heat and Cold. **HEAT** and **COLD** are the most general and obvious Qualities in Bodies. The former consists in a great *Agitation*, and violent intestine Motion of the Particles of *hot Bodies*, which acting on us, excites that *Idea* in our Minds. On the contrary, Cold proceeds from the *Inactivity* and *motionless State* of the Particles of cold Bodies. *Heat* may arise to such a Degree in Bodies as to render the Particles *luminous* and *fluid*, which is call'd a *Flame* of *Fire*; and *Cold* may be augmented so far as to render *fluid Bodies* *fix'd* and *solid*, which is call'd *Congelation* or *Freezing*; thus *Water* we see is *congeal'd* or *frozen* into *Ice*.

Humidity. **HUMIDITY** arises from a Mixture of *liquid Particles* with those of a *fix'd Nature* in Bodies. And thus by exhaling and evaporating this Quantity of *liquid Matter* from Bodies, their *Moisture* ceaseth, and they are said to be *dry*, or in a State of *Siccity*, which is deficient of all *liquid Particles*.

Elasticity. **ELASTICITY** is that which we vulgarly call *Springiness* in some Bodies; by this Quality they do, when *bended* or *press'd*, immediately return to their first *Figure* or *Form*, of their own accord. This Property is more or less in all Bodies; but none are perfectly *elastic*, or which recover their *Figure* with the *same Force* they lost. The Cause of *Elasticity* depends on a special *Configuration*, *Mode*, and *Attraction* of the Parts of *Elastic Bodies*.

Odours. **ODOURS** of Bodies are those exceeding fine and invifible Parts which continually fly off the *odori-ferous Body*, and perfume the Air around with Smells and Scents of various kinds; these *Effluvia* (as they are call'd) arriving at our *Nostrils*, affect the *Olfactory Nerve*, and thereby excite the *Ideas* of *Odours* and *Smells* in our Minds.

SAPOURS or *Tastes* are, in like manner, *Ideas Sapours*. raised in the Mind by means of certain *Saporific Particles* in Bodies affecting the *Nervous Papillæ* of the Tongue, which are the Organs of *Tastes*.

Of URANOLOGY.

URANOLOGY, or what I have elsewhere call'd *Of Uranology*, *Cosmology*, is the second great Part of *Natural Philo-* or *Cosmology*. *sophy*, and is the Doctrine of the Heavens and Ethereal Regions above the Atmosphere of Air, in and through which the great and splendid Bodies of the Sun, the Planets, the Comets, and the Stars are seen to move, which there become the Subject of this Part of *Physiology*. *Uranology* then may be considered under the following Branches, viz. (1.) *Heliography*, which *Its Parts*. treats of the Sun. (2.) *Selenography*, which treats of the Moon. (3.) *Planetography*, which treats of the Planets. (4.) *Cometography*, which treats of the Comets. (5.) *Astrography*, which treats of the Fix'd Stars; of which in order.

HELIOGRAPHY is the *Philosophical Doc-* *Heliography*, *trine* of the Sun, which is briefly summ'd up under the *or Doctrine of* following Articles. (1.) The Sun is the Center of a *the Sun*. System of six great Bodies call'd Planets, which continually move around him. (2.) The Sun is the Fountain of native *Light* and *Heat*, which is communicated from him to the Planets. (3.) His *Diameter* is computed to be 822148 *English* Miles, and his solid Content 29097100000000000 Miles. (4.) The *Quantity* of *Matter* in his Body is to that in the *Earth* as 10000000 to 59. (5.) The *Weight* of *Bodies* on his Surface to their *Weight* here, as 10000 to 435. (6.) His *Density* to that of the *Earth*, as 1 to 4. (7.) On his Surface appear certain dark Spots call'd *Maculæ Solares*, which often change their *Place*, *Number* and *Magnitude*; but what they are is not known. (8.) If those Spots are really in the *Sun's* Body, they prove him to have a *Motion* about his *Axis* in about 25 Days and 6 Hours, else he hath none. (9.) His *daily Motion*, from *East* to *West*, is not *real*, but *apparent*, arising from the *true Motion* of the *Earth* on which we live.

*Selenography,
or Doctrine of
the Moon.*

SELENOGRAPHY hath for its Subject a Description of the Moon pertaining to our Earth ; for though there be other Moons in the Planetary System, yet they are not considerable enough to be mention'd with this great (tho' secondary) Luminary. In the Moon then we observe, (1.) That her Body is dark, uneven, spherical, and like to our Earth in Matter and Form. (2.) That the bright Parts are the more eminent and illumin'd Parts of Land, as Mountains, Islands, &c. (3.) The dark Parts are thought to be Seas, Lakes, Vales, &c. which reflect no Light. (4.) 'Tis said by some there is an Atmosphere of Air about her ; and if so, then (5.) There is Wind, Clouds, Rain, and all other Meteors as here. (6.) And of consequence the Moon is inhabited by rational as well as various other Animals. (7.) The Diameter of the Moon is about 2175 English Miles, her Circumference 6829, her Superficies 14855440 square Miles, and her solid Content 5386333000 solid or cubic Miles. (8.) The Moon revolves about the Earth, with a very irregular and elliptic Motion, in about 27 D. 7 H. 43' at a Mean Rate, from West to East. (9.) The Mean Diurnal Arch, described by the Moon, is therefore 30° 10' of the Ecliptic. (10.) By this means she appears to rise and set each Day about an Hour later than another. (11.) According to the different Position of the Moon in her Orb, with respect to the Sun and Earth, she puts on various Aspects or Phases, as new, horn'd or cornuted, bisected or dichotomiz'd, gibbous and full. (12.) And since the Moon never appears at the same Distance from the Sun of a different Face, 'tis plain she must have a Diurnal Motion about her own Axis, compleated in the very same time as her Periodical or Menstrual Revolution about the Earth is. (13.) So that the Lunarians have their Days and Months of equal Length.

*Planetography
or Doctrine of
the Planets.*

PLANETOGRAPHY is a Description of the Natural Affections and Phænomena of the Planets : The Principal of those which are common to all of them, are as here set down. (1.) They all revolve about the Sun as the Center of the System, viz. Mercury ☿, Venus ♀, the Earth ⊕, Mars ♂, Jupiter ♃, Saturn ♄ ; and in the Order from the Sun as they are here

here named. (2.) The Form of all their Orbs is *Elliptical*, some more than others. (3.) In their Orbs they describe *Areas* (by a Line drawn to the Sun) *proportional* to the *Times*. (4.) Their Velocity is always reciprocally as their Distance from the Sun, in any Point of their Orbs. (5.) The *Attraction* or *Action* of the Sun, at each of them, is reciprocally as the *Squares* of the *Distances* from the Sun. (6.) The *real Motion* of them all is from *West* to *East*, tho' sometimes they appear to move from *East* to *West*; and sometimes they appear not to move at all: And thus they are said to be *direct*, *retrograde*, and *stationary*. (7.) The *Earth*, *Jupiter*, and *Saturn*, are many times eclipsed by the Interposition of their *Moons* between the Sun and themselves, which are sometimes *partial*, sometimes *total*, and sometimes *central* Eclipses. (8.) The Orbit of the *Earth*, or that in which the Sun appears to move, is call'd the *Ecliptic*, which is divided into twelve equal Parts, call'd *Signs*, viz. *Aries*, the Ram ϖ ; *Taurus*, the Bull τ ; *Gemini*, the Twins π ; *Cancer*, the Crab $\var�$; *Leo*, the Lion σ ; *Virgo*, the Virgin μ ; *Libra*, the Balance ν ; *Scorpio*, the Scorpion μ ; *Sagittarius*, the Archer ϕ ; *Capricornus*, the Goat ψ ; *Aquarius*, the Waterer ω ; *Piscis*, the Fish χ . (9.) The Orbs of the other Planets are not in the Plane of the *Ecliptic*, but are differently inclined thereto in a certain Angle. (10.) The *Common Intersection* of those Planes, with the Plane of the *Ecliptic*, is called the *Line of Nodes*; because, (11.) The Extremities of these Lines in the *Ecliptic* are called the *Nodes*, where the Planet ascends or descends below the Plane of the *Ecliptic*; the former is called the *Dragon's Head* γ , and the other the *Dragon's Tail* δ . (12.) The Point in the Orb, most distant from the Sun, is called the *Aphelium*, and that nearest the *Perihelium*: Besides these general Things, the Planets have each some *Peculiarities*.

Saturn has a most surprizing *Phænomenon*, call'd his *Saturn's Ring*. Ring, which, like the *annular Border* of a Pewter Dish, encompasses his Body at the Distance of 21000 Miles, and its *Breadth* is as much more.

Jupiter's Belts *Jupiter* has the Appearance of *Belts* girding his Body; concerning which there are various Conjectures, but nothing certainly known.

Jupiter, *Mars*, and *Venus*, are also observed to have dark Spots on their Disk.

The Satellites *THE Earth*, *Jupiter*, and *Saturn* have a System of *Jupiter* and of Secondary Planets, call'd the *Satellites* or *Moons*; the *Earth* 1, *Jupiter* 4, and *Saturn* 5, whose *Distances* and *Periodical Times* are as here set down.

		D.	H.	M.			
<i>Jupiter's</i>	1 Satellite	1	: 18 :	27	Distant in Semidia- meters of <i>Jupiter</i>	{	from his Center.
	2 ———	3	: 13 :	13			
	3 ———	7	: 3 :	42			
	4 ———	16	: 16 :	32			
<i>Saturn's</i>	1 Satellite	1	: 21 :	18	Distant in Semidia- meters of <i>Saturn's</i> Ring	{	from <i>Saturn's</i> Center.
	2 ———	2	: 17 :	41			
	3 ———	4	: 12 :	25			
	4 ———	15	: 22 :	41			
	5 ———	79	: 22 :	4			

A Synopsis of the chief Properties of the PLANETS.

Titles.	Mercury	Venus	Earth	Mars	Jupiter	Saturn
Greatest Apparent Diameter.	° 11 48	° 5 58	32 47 Sun	° 20 50	° 24 12	° 19 40
Least Apparent Diameter.	° 4 4	° 9 34	31 40 Sun	° 2 46	° 14 36	° 14 11
Proportion of Diameters to the Sun's 1000.	4	12	12	6	181	137
Diameters in Miles.	2460	7906	7964	4444	81155	67870
Mean Dist. from the Sun.	38710	72333	100000	152369	520110	953800
The same in Miles.	32000000	59000000	81000000	123000000	424000000	777000000
Daily Mean Motions in their Orbits.	° 4 5 32	° 1 36 8	° 59 8	° 31 57	° 4 59	° 2 0
Their Periodical Revolutions.	D. H. M. 87 23 16	D. H. M. 224 16 49	D. H. M. 365 6 9	D. H. M. 686 23 27	D. H. M. 4332 12 20	D. H. M. 10759 6 36
Their Diurnal Revolutions	* * *	° 23 0	° 23 56	1 ° 0 40	0 9 56	* *
Eccentricities.	7970	517	1690	14100	25050	54700
Place of the Aphelium.	♈	♊	♈	♏	♊	♈
Place of the Node S.	♋	♊	♈	♏	♊	♈
Inclination of the Orb.	6 54 °	3 24 °	* * *	1 52 °	1 20 °	2 30 °
Proportion of Light and Heat	700	200	100	40	37	11
Moons attending them.	*	*	1	*	4	5

*Cometography,
or Doctrine of
the Comets.*

COMETOGRAPHY is the Doctrine of *Comets* or *Blazing Stars*; their Bodies are said to be *solid*, *compact*, *fix'd*, and *durable Substances*; they are but a different kind of *Planets*, and move about the Sun in Orbs vastly *elliptical* and *excentric*, some more so than others; and therefore their *periodical Revolutions* are very great for the most part; the least we know being $75\frac{1}{2}$ Years. There are three Sorts of *Comets*: (1.) *Cometa Crinita*, having a *Tail* like that of an *Horse*. (2.) *Cometa Barbata*, having a *Tail* like a *Beard*. (3.) *Cometa Ensisformis*, having a *Tail* like a *Sword*. The *Tails* of *Comets* are supposed to be owing to some unctuous Matter of their Bodies, which by the Sun is prodigiously heated and rarified, and made to fly off in a fiery blazing Vapour, growing still wider and thinner towards its Extremity; their Bodies are discover'd to have an Atmosphere about them; and these are the principal Matters yet known of *Comets*, which are related here.

*Astrography,
of the Stars.*

ASTROGRAPHY describeth the *Fixed Stars*, whose chief *Phænomena* are, (1.) That they are infinite in Number, at least innumerable, consider'd all together. (2.) The Number of visible ones is not great, being not above 400 or 500 in a clear dark Night. (3.) These, together with all that can be discover'd by a *Telescope*, are not above 3000. (4.) They all shine with their native and proper Light, and appear as *Points* only on account of their immense Distances. (5.) They are therefore supposed very reasonably to be so many *Suns*, each having a *System* of *Planets* and *Comets* about him like our *Sun*. (6.) Some new *Stars* appear, and other *Stars* have disappear'd or been extinguish'd, which are by some reckon'd to have been the *Planets* or *Comets* belonging to some of the nearest *Fixed Stars* or *Suns*. (7.) The *Galaxy* or *Milky Way* is produced by the united Lustre of an infinite Number of invisible Stars in that Region. (8.) The fixed Stars have a slow Motion about the *Poles* of the *Ecliptic*, perform'd in 25920 Years, which Space is call'd the *Platonic* or *Great Year*; after the Expiration of which, the *Stars* and all *sublunary Things* return again to their first *State* and *Places*.

Platonic Year.

OF AEROLOGY.

AEROLOGY is a *Physiological* Description of the *Atmosphere* or Body of Air environing the Earth on every Part, and of all the *Meteors* in and produced by it. This Part is therefore divided into the following Branches. (1.) *Aerography*, which treats of the *Atmosphere*, or *Air* in general. (2.) *Anemography*, which treats of the *Winds*. (3.) *Meteorography*, which treats of the *Meteors*, and other *Celestial Phenomena*.

*Of Aerology,
and its Parts.*

AEROGRAPHY describes the Nature, Properties, and various Affections of the *Atmosphere* or *Air*, which are reducible to the following Heads. (1.) The *Atmosphere* is that huge *Body* or *Shell* of Air, which incloses the Earth all around, and extends to a considerable Height, viz. about 40 or 45 Miles. (2.) The *Density* of the Air gradually decreases as its Height increases. (3.) The Particles of Air are so very fine, and of such a Nature, as to render the whole Body of Air *pellucid* or *diaphanous* to that Degree as to be *invisible*. (4.) The Air is also *fluid*, but not *congealable* like Water. (5.) It is capable of being *rarified* and *condensed*, to a very great Degree. (6.) It is very *elastic*, or endued with an *elastic* Power or Force. (7.) The *Weight* of the Air is very great, no less than 2000 *lb.* on every *Square Foot* of the Earth's Surface. (8.) From the Pressure of which the *Mercury* rises in the *Barometer*, and the *Water* in the *Pump*, &c. (9.) It is the *Medium* of all *Sound*; for a *Bell* struck in an *exhausted Receiver* cannot be heard. (10.) It is the *Medium* which diffuses *Light*; for were there no *Atmosphere* to refract the Sun's Rays all around, the Heavens would appear as dark in the Day-time as at Night; and the *Sun*, *Moon*, and *Stars* only would appear *visible*. (11.) It is the *Means of Life*, inasmuch as by its *Pressure* and *Elasticity* it rushes into and distends the *Lungs*, and keeps them playing in *Inspiration* and *Expiration*. (12.) It communicates a *Vital Principle* or *Spirit* to *Animals*, which the Fire destroys; for no Creature can live in *adust* or *burnt Air*, or such as has pass'd thro' the *Fire*. (13.) It is necessary for *Vegetation*; for Plants and

*Aerography, or
Doctrine of
the Atmosphere*

Trees

Trees *respire* the *Air*, on which their *Vegetative Life* depends. (14.) It is an universal *Menstruum*, which dissolves all Bodies in Time, and reduces their Substances to *new Forms*; as *Iron* into *Rust*, *Copper* into *Verdigrease*, &c.

Anemography,
or *Doctrine of*
the Wind.

ANEMOGRAPHY is the *Physiological Doctrine* of the *Wind*. (1.) The *Wind* is nothing but a *Stream* or *Current* of *Air*, as a *River* is of *Water*. (2.) Any thing which destroys or disturbs the *Equilibrium* of the *Air* may be the *Cause* of *Wind*; as *Heat*, *Eruptions* of *Vapours*, *Rarefactions* and *Condensations*, *Fall* of *Rains*, *Pressure* of the *Clouds*, &c. (3.) The *Winds* have *various Qualities*; some being *violent*, others *gentle*; some *hot*, others *cold*; some *constant*, others *mutable*; some *moisten* and *dissolve*, others *dry* and *thicken*; some *raise Rain*, others *disperse* it; some *intermittent* and *unequal*, others *serene* and *smooth*, &c. (4.) Some *Winds* blow constantly from one *Quarter*, and are call'd *General Trade-Winds*; as on each *Side* the *Equator* to near 30 *Degrees* *Latitude*, in the *Atlantic*, *Ethiopic*, and *Pacific Oceans*: Which proceeds from the *Sun's* rarifying the *Air* over those *Parts*, and the flowing in of the *denser Air* from the distant *Parts* of each *Hemisphere*. (5.) Some *Winds* blow only *one Half* or *one Quarter* of the *Year* one way, and then the contrary, which are call'd *Monsoons*, or *Periodical Trade-Winds*; these are found in the *Arabian*, *Indian*, and *Chinese Seas*; for the *Cause* whereof see the *Philosophical Grammar*. (6.) The *Velocity* of *Wind* is at the *Rate* of 50 or 60 *Miles* in a *great Storm*, and a common *brisk Wind* about 15 *Miles* an *Hour*; and some move not one *Mile* an *Hour*. (7.) The *Use* of the *Wind* is very great, in *cooling* and *cleansing* the *Air* from all *poisonous Contagions*, and *pestilential Exhalations*; and thereby keeping it *pure* and *healthful*. The *Winds* also carry the *Clouds*, and distribute the *Rains* to the several *Parts* of the *Earth*; with many other excellent *Uses*.

Meteorography

METEOROGRAPHY is a *Description* of the *Meteors* of the *Air*; as *Vapours*, *Clouds*, *Rain*, *Thunder*, &c. which here follow in *Order*.

Vapours.

VAPOURS, of which most *Meteors* proceed, are a *Body* of aqueous *Particles* some-how separated from the *Surface* of the *Water*; or *moist Earth*, by the *Action*

Action of the Sun's Heat, and are so small as to be specifically lighter than Air, into which therefore they rise and float, and form the *Clouds*.

MISTS and *FOGS* are a *Commixture of Vapours* *Mists and* and *Exhalations*; the latter as they visibly arise and *Fogs* ascend from particular Places, as *Rivers, Lakes, Fens, Marshes, &c.* and the former as they descend and fill the Air, and render it more opaque than usual.

CLOUDS are nothing else but *Misty Vapours* *Clouds.* suspended aloft in the Air, and soaring on the Wings of the Wind: These, when by the Agitation of Winds, the Sides of Mountains, or any other Means, they are driven together, and condensed into yet thicker and darker Clouds, become specifically heavier than Air, and descend in *Drops of Rain.* *Rain.*

SNOW is occasion'd from Particles of Vapours *Snow.* frozen into *Icicles* in the *Cold Regions* of the higher Air, which being heavier than Air, fall down, and in their Descent several of them striking together, coalesce, and form *Fleeces of Snow.*

HAIL proceeds from Drops of Rain congeal'd *Hail.* into Ice by *Nitrous Particles* which they meet with in their Descent through the inferior Air.

ICE and *FREEZING* are supposed to be the *Ice and Free-* Effects of *Nitrous Particles*, which being sharp and *zing.* pointed, insinuate themselves into the Pores of *Water, Dew, &c.* and do thereby fix, crystalize, and harden the Superficies thereof into the Substance we call *Ice,* and *Frosts, &c.*

THUNDER proceeds from an heterogeneous *Thunder and* Commixture of the *Effluvia* or *Exhalations* of *Lightning.* sulphurous, nitrous, and inflammable Bodies in the Air, which ferment, kindle into *Flames*, and make horrible *Explosions* (like Gun-powder) which we call *Thunder* and *Lightning.*

THE *AURORA BOREALIS*, or Northern *Aurora Bore-* Lights, are produced also from *Nitro-sulphurous Va-* *alis.* *pours*, which are thinly spread through the *Atmosphere* higher than the Clouds, and by *Fermentation* take *Fire*, and the *Explosion* of one Portion kindling the next, the *Flashes* succeed one another till all the *Vapour* within their Reach is set on *Fire*, the *Streams* whereof will appear to converge towards the *Zenith* of the *Spectator*, or the Point over our Heads.

THE

Ignis Fatuus.

THE *IGNIS FATUUS*, or *Jack-with-a-Lanthorn*, is supposed to be nothing but a *fat, unctuous and sulphurous Vapour*, which appears *lucid*, and is wafted about by the Air, near the Earth's Surface, like a Light in a *Lanthorn*. Such like Vapours kindling in the serene Air in the Night, appear like *falling Stars*, and are therefore so call'd.

The Rain-Bow.

THE *RAIN-BOW*, one of the finest of the *Phænomena* of Nature, exists in falling *Rain* or *Dew*, and is produced by *Reflection* and *Refraction* of the Sun's Rays in the *aqueous Particles*; the *Manner* whereof, and the *wonderful Properties* of the *Bow*, too large and many to be here explain'd, may be seen in my *Philosophical Grammar*.

Halo's.

HALO'S are those Circles which are seen sometimes to encompass the *Sun* and *Moon*, and are often variously colour'd; they always appear in a *rimy* or *frosty Sky*, and proceed from the *Refraction* only of the Light in the *Hail-stones* in the Air. Their Diameter is generally about 45 or 46 Degrees.

GEOLOGY.

Of Geology, and its Parts.

GEOLOGY is a Physiological Description of the *Terraqueous Globe*, so call'd as consisting of *Land* and *Water*. This Branch of *Philosophy* is divided into two others, viz. (1.) *Geography*, which treats of the *dry Land*, and (2.) *Hydrography*, which treats of the *watry Parts* of the *Globe*, and the Properties of *Water* in general.

Geography.

GEOGRAPHY is again subdivided into (1.) *Geography* especially so call'd, which treats of the Surface of the *Land*, and all its Particulars. (2.) *Mineralogy*, which treats of *Fossils*, *Minerals*, *Earths*, &c. in the Bowels of the Earth. (3.) *Phytology*, which treats of the Nature of *Vegetables*; and (4.) *Zoology*, which treats of the various Kinds of *Animals*.

Hydrography.

HYDROGRAPHY also considers (1.) The *Sea*, its *Figure*, *Tides*, *Saltnefs*, *Extent*, &c. (2.) The Doctrine of *Fountains*, *Rivers*, *Lakes*, &c. Of all which in Order.

SPECIAL

SPECIAL GEOGRAPHY has been discoursed of, as a particular Science; I shall therefore pass to

MINERALOGY, which treats of Subjects dug up out of the Bowels of the Earth, which may be reduced to these seven Heads. (1.) *Earths*. (2.) *Ores*. (3.) *Fossils*. (4.) *Minerals*. (5.) *Metals*. (6.) *Stones*. (7.) *Exuvia*, and other extraneous Bodies. *Mineralogy.*

EARTHS include all those softer earthy Substances we call *Clay*, *Loam*, *Marl*, *Sand*; and the *Boles* or *Earths*, as the *Terra Japonica*, *Lemnia*, *Armenia*, &c. all which result from the various and different Degree, Mixture, and Modification of the *Universal Properties* and *Specific Qualities* of the constituent Particles of the Matter whereof they consist. *Earths.*

ORES are those kinds of Earth which are dug out of *Mines*, containing great Quantities of *Metallic* Particles, and from which *Metals* are extracted; as *Gold Ore*, *Silver Ore*, &c. *Ores.*

FOSSILS are, properly speaking, all Bodies dug out of the Earth, concerning which, see the *Fossil Kingdom* under the Title *Chemistry*, and the *Philosophical Grammar*. *Fossils.*

MINERALS are all such *Fossil Bodies* as are not *inflamable*, *ductile*, or *fusible*; but are *hard*, *brittle*, and may be reduced to *Powder*, or *calcined* by *Fire*. They are sometimes call'd *Semi-Metals*, as being of a middle Nature between *Stones* and *Metals*; the Principal of these are *Marcasite* or *Bismuth*, *Antimony*, *Cinnabar*, *Chalk*, *Coal*, &c. to which some add *Mercury* or *Quick-silver*. *Minerals.*

METALS are simple *Fossil Bodies*, that *fuse* or become *fluid* by *Fire*; and by *Cold* *coagulate* and *harden* into a *solid Mass*; and lastly are *malleable* or *ductile* under the *Hammer*. The Bodies to which this Definition belongs in every Part, are but *six*, viz. (1.) *Gold*, which is the *heaviest*, most *ductile*, *malleable*, *fixed* and *pure* of all Bodies; it is easier fused than *Iron* or *Copper*; is dissolvable in no *Menstruum* but *Aqua Regia*; and is found sometimes in *Glebes* of *Ore*, and sometimes in *pure Dust* or *Grains* in the Bottom of some Rivers in *Guinea*, &c. (2.) *Silver* is next to *Gold* in *Purity*, *Fixity*, *Ductility* or *Malleability*; is more difficult of *Fusion* than *Gold* or *Lead*; is dissolvable *Silver.*

Copper.

vable in *Aqua-fortis*; but not in *Aqua-regia*; it is seldom found *pure*, most often in a kind of stony black Glebe in the Mines of *Peru* and *Chili*. (3.) *Copper*; it is next to *Silver* in Weight, is very *ductile* when *pure*; its *Fixity* is greater than that of *Lead* or *Tin*; it is dissoluble by all Salt Menstruums yet known: If it be dissolved in an acid one, it turns *Green*; if in an alkaline, *Red*; and in others, *Blue*. It is the most *elastic* and *sonorous* of all Metals. The richest *Copper Ore* is in the Mines of *Hungary*.

Iron.

(4.) *Iron*; this Metal is compounded of a *Vitriolic Salt*, *Sulphur*, and *Earth* ill digested together. It is the least *ductile*, the *hardest* and most *brittle* of all Metals. It *ignifies* long e'er it fuses. It is dissoluble by all *Menstruums*. It is the only Metal subject to the *Magnetic Power*, and has a kind of *Magnetic Virtue* in itself. It is every where found in *Mines*, in a stony Glebe, like a *Load-stone*.

Tin.

(5.) *Tin*; this is the *lightest* of all Metals, and the *softest* except *Lead*. It has the least *Fixity* in *Fire*; is easily *fusible*, and that long before *Ignition*. It is easily *miscible* with other Metals, and greatly increases their *Sound* and *Elasticity*. It is chiefly dug in *Cornwall*, and its Glebe or Ore is a *heavy spongy Stone*. (6.) *Lead*; this is next to *Gold* in Weight, but the *softest* and most flexible of all Metals; as also the most *fusible*, least *sonorous* and *elastic* of all others. It is sometimes found *pure*, but oftner in *Mineral Ore*, which is a sort of blackish fat *Earth* difficult to fuse.

Lead.

Mercury.

MERCURY is by some reckon'd among the Metals; it is the *heaviest* of all Bodies but *Gold*. It is the *most fluid* Body in Nature, and therefore divisible into the minutest Particles. It is found capable of the greatest Degree of *Cold* and *Heat*, but is yet incapable of *Congelation* or *Freezing*. It enters the Pores of almost all Bodies, and dissolves in most *Acids*. It is next to *Gold* in Purity, and is extremely *volatile*. It is found in Mines; and sometimes *pure*, running in Veins and Streams about the Mine, and is then call'd *Virgin Mercury*.

Stones.

Vulgar.

Precious.

STONES make the next Class; these are commonly distributed into *Vulgar* and *Precious Stones*; of the first sort are *Marble*, *Flint*, *Free-Stone*, *Pumice-Stone*, *Talk*, *Chalk*, common *Stones*, *Pebbles*, &c. *Precious Stones*, which are call'd *Gems* or *Jewels*, are of divers

divers Distinctions, some being *transparent*, as the *Adamant* or *Diamond*, *Crystal*, and *Beryl*: Some are variously colour'd, and *brillant*; as the *Carbuncle*, *Jacinth*, *Chrysolite*, *Smaragdus*, *Topaz*, *Amethyst*, *Achate*, *Jasper*, *Ruby*, *Granate*, *Onyx*, *Sardonyx*, *Sapphire*, and a few others of less Note. Of all which see an Account in the *Philosophical Grammar*.

EXUVIÆ, which make the last Head of *Mineralogy*, are all those Shells and Parts of Animals, which are often found in the Bowels of the Earth: As the *Echini*, *Glossopetræ*, *Cockles*, *Oystershells*, *Turbens*, *Scallops*, *Bones*, &c. petrified, or preserv'd from *Corruption* thro' Ages past, and very probably most of them from the *Flood*, when the *Exuviae* of *marine*, &c. Animals were by the general Inundation brought upon and mix'd with the superior Part of the Earth, and which in Time harden'd into the Substance of *Stone*. *Exuviae.*

PHYTOLOGY; this will be the the Subject of *Phytology*. an entire Discourse under the Title of *BOTANY*, next following, which therefore see.

ZOOLOGY; is that Part of general *Geography*, *Zoology*. which treats of the *Nature*, *Kinds*, and *Species* of *Animals*.

AN *Animal* is an *organized* Body, endued with the Powers of *Sensation* and *Thought*, and of *voluntary* *local Motion*. This is the most exalted Kind of all *terrestrial Beings*, and in which there are many Gradations, which are the Subjects of as many Branches or Subdivisions of *Zoology*; and these are as follow: *An Animal defined.*

(1.) *Anthropography*, which treats of the *Nature* and Parts of the *Human Body*, and is the proper Subject of *Anatomy*, which see. *The Parts of Zoology.* (2.) *Zoography* in particular, which treats of the *Nature* of *Beasts* or *Brutes*; as *Horses*, *Kine*, *Sheep*, &c. (3.) *Ornithography*, which treats of the *Nature* of *Birds* or *Fowl*. (4.) *Ichthyography*, or the Doctrine of *Fishes*, which considers their *Nature*, *Kinds*, and *Parts*. (5.) *Entomography* treats of *Insects*, which are (*quasi insectæ*) as it were cut *afunder*, and the two Parts join'd by a small Thread or Neck; as in *Ants*, *Flies*, *Bees*, &c. (6.) *Herpetography*, or the Doctrine of *Reptiles*, or that Tribe of Creatures which move with a *sinous*, *vermicular*, or *creeping Motion*, and neither walk nor leap,

as do the other *Species* above-mention'd ; such as *Worms, Snails, Caterpillars, &c.* (7.) *Zoophytography* treats of such Creatures as are a kind of *Medium* between *Vegetables* and perfect *Animals*, or partake of both in some measure ; as all *Shell-Animals* : As *Oysters, Cockles, Snails, &c.* which resemble a *Plant* in being fix'd to some other Body, viz. their *Shell* ; and an *Animal*, as having *Sense, Thought, and Motion*. Concerning all these the Reader may see a short Survey in the *Philosophical Grammar*, or consult the larger Works of *Naturalists*.

Of Hydrography.

The Sea.

Its Figure.

Extent.

Depth.

Saltness.

Tides.

Spring and Neap Tides.

How we have two Tides each Day.

HYDROGRAPHY delivers the Doctrine of the Sea, and all Kinds of *Waters*. In the Sea we consider, (1.) Its *Figure*, which, since the Earth is known to be of a round or globular Figure, must needs be *convex* or *spherical* likewise, according to the known Laws of *Fluids* ; which also is demonstrated by sailing on its Surface. (2.) Its *Extent*, or Quantity of Surface : 'Tis impossible nicely to determine this ; but 'tis well known to be above two Thirds of the Surface of the whole Earth. (3.) The *Depth* thereof ; this is various in different Parts, being in some Places unfathomable, in others $\frac{1}{20}$, $\frac{1}{5}$, $\frac{4}{10}$, $1\frac{1}{10}$, $2\frac{2}{10}$, $4\frac{1}{2}$ *English Miles* deep ; whence it appears that the *Depths* of the Sea bear some Proportion to the *Height* of *Mountains* on the Earth. (4.) Its *Salt* ; this is supposed to arise from vast *Rocks, Mountains, and Mines of Salt* dispersed over the Bottom of the Sea ; which being continually diluted, is as constantly mixing with its *Waters* ; which therefore can never lose their *salt Quality*. (5.) The *Tide*, or *Flux* and *Reflux*, call'd the *Flowing* and *Ebbing* of the Sea : This is known to arise from the *Attraction* of the *Moon* principally ; sometimes the *Attraction* of the *Sun* contributes thereto, as in *Conjunctions* and *Oppositions*, and then the Tides of course rise higher, and are call'd the *Spring-Tides*. On the contrary, in the *Quadratures* the *Moon's* *Attraction* is diminish'd by the *Sun's*, and then the Tides flow lower, and are call'd the *Neap-Tides*.

THE Waters perpendicularly under the *Moon* are in the upper Hemisphere most attracted, in the lower one the least attracted of all other Parts of the Sea's Surface ; and therefore in both Cases the Water will become

become lightest in these Places, and consequently will there tumify and rise highest, and so occasion two *Tides* opposite to each other; which will successively pass any Meridian at the Distance of twelve Hours time.

THE Forces of the Moon's and Sun's Attraction are to each other as 51 to 10; the *Sum* and *Difference* of these Numbers are 61 and 41, and therefore the *Spring-Tides* caused by the Sun will be to the *Neap-Tides*, caused by the *Differences* of these Forces, as 61 to 41, or as 6 to 4; that is, the former are one third Part greater than the latter: Or, if the Sun can raise one Foot eleven Inches, the Moon will raise it nine Feet seven Inches; and both together in the *Spring-Tides* about eleven Feet and a half, but in *Neap-Tides* only about seven Feet and a half. And so much for a general Notion of the *Tide*, which admits of great *Variety* and *Exceptions*. *The Difference of Spring and Neap-Tides.*

SPRINGS or *FOUNTAINS* are the next thing to be considered. They are generally reckon'd of two Sorts, viz. (1.) *Temporary*, which run only for a time, or in *Winter*, and dry up in the *Summer*. These arise from great *Rains*, which falling on the higher Parts of Land, enter the *Crevices* of the Earth, and run thro' various subterranean *Veins* and *Channels*, till they find Vent in the Surface of some lower Part, where they bubble up and issue forth in Streams. (2.) *Perennial*, which constantly run all the Year round. These are supposed to derive their Waters from the *Ocean*, by Ducts and hollow winding Passages thro' the Bowels of the Earth to various Parts of its Superficies, where they burst forth as do the others: Tho' many will have it that all Springs have their Waters, if not wholly, yet principally from *Rain*. But so great is the Controversy about these Things, that I shall say no more of it here. *Of Springs. Temporary. Perennial.*

RIVERS are said to owe their Original to many Causes; as (1.) Great Springs gushing out of the Earth in large Streams and Torrents, which force their Way thro' the Country to the *Ocean*. (2.) The several lesser Streams from divers Springs uniting, form a larger; and the *Confluence* of several of these larger Brooks or Streams make one great Current or *River*. (3.) Vast *Defluxions* of Rain, melted Snow, *Rivers and their Causes.*

condensed Vapours, &c. from the Sides of high Mountains, tear up the Earth, and form *Channels* for the *largest Rivers* in the World, as the *Danube*, the *Po*, &c.

Lakes whence. **LAKES** are those Collections of Waters, which are stagnant in the *Cavities* of the Earth's Surface. Of these some have their Rivers which discharge themselves therein; some proceed from *Rain* and *Snows* which fill those Hollows. Others are nourished by various Springs rising therein: And lastly, others have a Communication with, and receive their Waters from the Sea; which is manifest in *Salt Lakes*, as that of *Haerlem*, &c. Those *Lakes* send out large Rivers, which are supplied with subterranean Streams and Fountains: And those which receive large Rivers, and send out none, must have what's more than sufficient to fill them convey'd from them by Conduits under Ground.





Of BOTANY.



BOTANY (or PHYTOLOGY) is a *Botany or* Science which hath for its Subject *Herbs, Phytology de-* *Plants, or Vegetables* of all Kind: The *fined.* Word *Botany* being derived of the *Greek* Word *Botane*, which signifies an *Herb* in that Tongue. Hence a Treatise on this Subject is call'd *Botanology*. The Book which gives an alphabetical Account of the Names, Nature, and Uses of Plants, is call'd an *Herbal*; and a Person well skill'd in this Science is call'd a *Botanist, Herbalist, or Simpler*.

A TREATISE of *Botany* should contain four great *The great* Parts, viz. (1.) A general Theory of *Vegetation*, explaining from the Principles of Reason and Experiments the Nature and Manner of the *Life and Growth* of *Plants and Vegetables*. (2.) A just and orderly *Distribution* of *Herbs and Plants* into their several general Kinds, and a particular Enumeration of the *Species* and *Individuals* contained in each. (3.) A *Division* of *Plants* into their natural component Parts, as *Roots, Stalks or Trunks, Branches, Leaves, Flowers, Fruit, &c.* with Observations on the Variety and Differences of each Part, in the various Kinds of Plants. (4.) A *Declaration* of the various Affections of *Plants and Vegetables*, as their *Place of Growth, Time of Blooming*, their several *Qualities* and *Uses in Medicine*, and other Affairs of Life. This latter Part is the Subject of an *Herbal*, and so can't be expected here at large. I shall give the best Account of all these Particulars that I can come at, and shall begin with the Definition of a *Vegetable*. *The great Parts of this Science.*

*A Vegetable,
what.*

A *VEGETABLE* is a Body organically form'd, adhering to some other Body by some Part of itself; by which Part it attracts and receives the Matter of *Nutrition* and *Increase*, which is call'd *Vegetable Life*. Such are all *Plants*, *Shrubs*, and *Trees*.

*Vegetation
defined.*

VEGETATION is the way of *Growth*, or *Increase* of Bulk, Parts, and Dimensions, by means of a proper Disposition of *organical Parts* or Instruments receiving Nourishment or nutritious Juices, and which thereby circulates thro' all the Substance of the Vegetable, and is the immediate Cause or Principle of *Vegetative Life*.

*Theory of
Vegetation.*

IN a perfect *Theory of Vegetation*, therefore, we must have regard to three Things: (1.) The *Original* or *Genesis* of a vegetable Substance or Plant. (2.) The *Mechanism*, or organical Disposition of Parts necessary to vegetative Life. (3.) Then what the vegetative Principle is, or what those nutritious Juices are by which the Vegetable is made to grow and increase in Bulk.

*Of the Original
or Genesis
of a Plant.*

By the *Original* or *Genesis* of a Vegetable, is not here understood the common Generation or Propagation thereof by Seed; but what that is in the Seed which primarily gives Form and Essence to the Plant, or how it comes to be or appear what it is. On this Head the Learned say much; and all, of late, agree that God, when he created the various Kinds of Vegetables, did even then also create and form every individual future Plant belonging to every Sort or Kind, and included them in proper Cases or Seeds one within another: so that the *original Seed* did *really* and *formally* contain in it all the future Plants of its Kind in inconceivable Smallness or *Miniature*: And therefore when any Seed is planted, we are not to expect the Production or Creation of a Plant which was not before in being, but only that the *Embryo* Plant hath, by this means, a Power to *vegetate*, or to unfold and unravel its Parts, to burst its *Matrix Seed*, to become visible, and to increase its Bulk to its appointed Dimension.

*How evinced
and establish'd*

THIS Doctrine of the Generation of Plants seems to be intimated by *Moses*, when he says, *And God said, Let the Earth bring forth Grass, the Herb yielding Seed,*

Seed, and the Fruit Tree yielding Fruit after its Kind, whose Seed is in itself upon the Earth. But it is abundantly confirmed by *Microscopic Observations and Reasoning* thereon; for not only all sorts of *Grain and Fruit* appear in due Form and Proportion of Parts, by the *Microscope*, even in the Bud, before the *Blossom* is seen, but even in the very Seed, while yet on the Plant, by help of the *Microscope*, the Plant of the next Year may be seen. For Instance: Take a full-ripe *Bean*, and view the *Germen* with this Glass, and you will plainly perceive it to be nothing but the Stalk, Leaves, &c. of the next Year's Plant in Miniature. If therefore the Plant of this Year produces Seed, and in that Seed we descry the Plant of the next Year already form'd, 'tis reasonable to suppose the Seed of that small Plant also contains another to be disclosed the second Year, and that another for the third Year, and so on *ad infinitum*, or to the End of Things.

THE *Modern Philosophers* have not only established a new Theory of the Generation of Vegetables, but have moreover found that there is really such a thing as *Sex* in Plants as well as in Animal Nature. And hence the Distinction of *Male and Female*, as well as *Hermaphrodite* Plants is become very familiar: For the *Vegetable Females* require *Impregnation* by the *Male Vegetables*, in order to Generation, as much as Animals; nor will the Seed produced by Female Plants, if sown, grow without it, any more than Eggs will produce Chickens, which were laid by an Hen not trod by the Cock: But since the Parts serving to Generation in Vegetables are indeed the *Flowers*, notwithstanding they are so beautiful, so gay, and much admired; I shall have Occasion to say more of this Matter, when I come to treat of that Part of a Plant.

THE next Thing to be consider'd in Vegetation, is the *Mechanism* or System of *Organs* or *Vessels* in a Plant, by which a Circulation of alimentary Juices is carried on through the Plant, and its Vegetation effected. In order to this there is found to be *two Series* or *Orders of Vessels* in Vegetables. (1.) Such as receive and convey the alimental Juices from the *Root* to all the Parts of the Plant. These answer to the *Arteries, Lacteals* and *Veins* in Animals. (2.) *Tracheæ* or

The Sex of Plants, a new Discovery.

The Structure of Plants.

Their Vessels. *Air-Vessels*, which are long hollow Pipes, wherein *Air* is continually received and expelled, *i. e.* inspired and expired. Within these *Air-Pipes*, *Malpighi* (the Discoverer of this vegetable Mechanism) shews all the former Series of Vessels are contained.

The Effect of Heat on Vegetables. HENCE it appears that the Heat of a Year, a Day, yea single Hour or Minute, must have an Effect on the Air included in these *Tracheæ*, *i. e.* must rarify it, and consequently dilate the *Tracheæ*; whence arises a perpetual Spring or Source of Action to promote the Circulation in Plants: For by the Expansion of the *Tracheæ*, the Vessels containing the Juices are pressed, and by that means the Juices contained are propelled and accelerated, and also comminuted and render'd more and more subtile, and so enabled to enter Vessels still finer and finer; the thicker Part of it being at the same time secreted and deposited into the lateral Cells or Vesicles of the *Bark*, to defend the Plant from Cold and other external Injuries.

Of the Sap. THE *Juice* (or what is vulgarly call'd the *Sap*) having thus gone its Stage from the Root to the remotest Branches, and having, in every Part of its Progress, deposited something both for Aliment and for Defence, what is redundant passes out into the *Bark*, the Vessels whereof are inosculated with those wherein the *Sap* mounted; and thro' these it re-descends to the Root, and thence to the Earth again; and thus a Circulation is effected.

The Vegetative Principle, what. THE third and last Part of the *Theory of Vegetation*, is a true Knowledge of the *vegetative Principle*, or that which is the immediate Matter of the Growth or Increase of the Plant. 'Tis certain this is a Juice furnished by the Earth, and imbib'd by the absorbent Vessels in the Roots of the Plant; this is circulated through the Substance of the Plant, and, in part, is assimilated thereto: And thus by the constant Addition of new Matter in every Circulation, the Plant is made to grow or increase its Bulk: But more particularly,

THIS *Nutritious Juice* is imbibed from the Earth, and therefore must contain some Fossil Parts, other Parts derived from Air and Rain, and others from purified Plants and Animals, &c. and consequently in *Vegetables* are contained all Kinds of *Salts, Oil, Water,*

ter, Earth, &c: if not mineral Particles too. This Juice enters the Root in form of a fine and subtile Water.

IN the Root then it is earthy, watry, acid, poor, and scarce oleaginous at all. In the Trunk and Branches it is further prepared, tho' it still continues acid. In the Gems or Buds it is more concocted, and, entering the Vessels of the Leaves, causes them to unfold and shew themselves. From hence it proceeds to the Leaves of the Flower, where it is still further digested: These transmitted to a greater Degree of Fineness to the Stamina; these again to the Farina or Dust in the Apices, where, having undergone a further Maturation, it is shed into the Pistil or Style, which receives it in the manner of a Womb, where it acquires its last Perfection, *fœcundates* the Seed, and gives Rise to a new Plant.

The State of the Sap in its different Stages of Circulation.

THE Sap in Plants performs the same Office as the Blood in Animals, *viz.* to be a Vehicle to convey the Food or Aliment to the several Parts of the Vegetable by Circulation. This Vegetable Aliment is (according to Dr. Woodward) a certain *terrestrial Matter* contain'd in all Water, and is of two Kinds, *viz.* The one properly a *vegetable Matter*, the other of a *mineral Nature*. The former of these is principally the Matter by which the Vegetable is nourished. That this is more than probable, and that the Plant owes little or nothing of its Growth to Earth or Water, is made evident by divers Experiments.

The Office of the Sap.

THUS Mr. Boyle raised a Plant of 3 lb. and after that another of 14 lb. was produced from a Quantity of Earth water'd with Rain or Spring Water, and which being carefully weigh'd dry at first and last, was found to have lost scarce any thing of its Weight.

Earth and Water conduce but little to the Vegetable Aliment, shewn by Experiments.

AGAIN: Van Helmont dried 200 lb. of Earth, and therein planted a Willow weighing 5 lb. which he watered with Rain or distill'd Water only; and after five Years he weigh'd the Tree, with the Leaves it had borne in the Time, and found the Weight thereof to be 169 lb. 3 oz. but that the Earth had lost only 2 oz. of its Weight; so that the Increase of the Plant was 13113 $\frac{1}{2}$ times more than the Expence of Earth, and consequently Earth has but a small Share in Vegetation.

THAT

THAT *Water* likewise conduces but little thereto, is evident from Dr. *Woodward's* Experiments. He took a Plant of common *Spear-Mint* which weighed 27 Grains, and placed it in a Vial of *Water* for the Space of 77 Days ; in which Time it drank up 2558 Grains of Spring *Water*, and then being taken out, weighed 42 Grains ; so that its whole Increase was but 15 Grains, which was but 170th Part of the *Water* expended.

HE took another Plant, weighing 127 Grains, placed it in *Water* for 56 Days, when it weighed 255 Grains, and the *Water* expended was 14190 Grains, which was 110 times more than the Increase of the Plant. From these, and many other Experiments, 'tis plain that *Water* also has but a small Share in Vegetation, and that therefore it must proceed from a peculiar vegetable Matter in *Water* and the Moisture of the *Earth*, as before observed.

Of the Perspiration of Plants.

SINCE then it appears that Plants imbibe such great Quantities of *Water* or Humour, and retain so little for Nourishment and Growth, it follows, that there must necessarily be a considerable Perspiration in Vegetables as well as in Animals, for the Discharge and Evacuation of all the superfluous Moisture in each Circulation. Accordingly, it has been found by Experience, that a Plant of about 3 lb. will perspire 30 oz. in 12 Hours Day in *July*, but in a warm Night not above 3 oz. and nothing in a cold Night : And also that such a Plant, if the Leaves were pluck'd off, would not perspire above 1 oz. in 12 Hours Day, which plainly shews, that the Leaves are the great Organs of Perspiration, and therefore may be call'd the Lungs of the Plant. Thus much for the Vegetation of Plants, the Theory whereof is not yet arrived to its due Perfection.

Of the second great Part of Botany.

The Distribution of Plants.

THE second great Province of Botany, is to make a just and natural Distribution and Arrangement of Vegetables into the several Genus's or Kinds and Classes, and to enumerate the Species and Individuals contain'd in each. To effect this, many Persons have pursued many and different Methods : For since the Kinds of Plants follow some general Differences or Characteristics, and these being to be found in almost all Parts of Plants ; therefore some have began to definé the various

various Kinds of Plants from their *Roots*, others from the *Flowers*, and others from the *Fruit*, &c. But in this Affair none has succeeded so happily as the great Mr. Ray, whom I shall here abridge; but shall first premise a Word or two concerning the more common and general Distinction of *Plants* and *Vegetables*.

FIRST, then, with respect to *Place* or *Country*, Plants are distinguish'd into (1.) *Indigenous*, or such as are *Natives* of our own Soil or Country; and (2.) *Exotics*, such as are brought from *Foreign Countries*; as *Aloes*, *Euphorbium*, &c. With regard to *Sex* they are divided into *Male*, *Female*, and *Hermaphrodite* Plants, as before observed. With regard to the Time of their Continuance, or *Period of Life*, they are distinguish'd into *Annual*, or such as live but one Year, or come up in the Spring and perish in the Winter; and *Perennial*, or such whose Roots endure many Years. Again, those Plants which retain their Leaves in *Winter* are call'd *Evergreens*, and such as do not are call'd *Deciduous*, or *Perdifsols*. Also *Vegetables* have been divided into *Herbs*, *Shrubs*, and *Trees*; but this is rather popular and vulgar, than just and philosophical. Lastly, with respect to the *Element* they live in, Plants are divided into *Terrestrial*, or *Land-Plants*; *Aquatic*, or *Water-Plants*; and *Amphibious*, or such as live indifferently in *Land* or *Water*.

BUT Mr. Ray is much more minute and nice in his celebrated Distribution of Plants into 25 *Genders* or *Classes*, which are as follow.

I. *Submarine Plants*, or which grow in the *Sea*, on *Rocks*, &c. and seem to want both *Flower* and *Seed*: As *Corals*, *Sponges*, *Alga*, &c.

II. THE *Fungi*, *Tubera Terræ*, or Mushrooms, Puff-Balls, and those Excrescences of Trees call'd *Jew's-Ear*, *Agaric*, &c. all which appear to want both *Flower*, and *Seed*, and *Leaves*; and have a *Vegetation* peculiar to themselves.

III. *Mosses* of all Sorts, most of which appear to want *Flower* and *Seed*; for which Reason these three *Genus's* are by Mr. Ray call'd *Imperfect Plants*.

IV. *Capillary Plants*, which are all such as want a *Stalk*, or consist of mere *Leaves*, and whose *Seed* grows like small *Dust* on the *Back-part* of the *Leaves*;

Leaves : As *Maiden-hair*, *Spleenwort*, *Polypody*, *Fern*, &c.

Apetalous. V. Plants which bear *apetalous* or *stamineous* Flowers, i. e. such as consist only of *Stamina* and the *Perianthum*, without any Leaves : As *Hops*, *Hemp*, *Nettles*, *Docks*, *Sorrel*, *Arsesmart*, *Lady's-Mantle*, &c.

Lactiferous. VI. Plants which have a *compound Flower*, and which emit a sort of white *Juice* or *Milk*, when their *Stalks* or *Branches* are cut or broken off : As *Lettuce*, *Sow-Thistle*, *Dandelion*, *Succory*, *Goats'-Beard*, *Nipplewort*, &c.

Discoide. VII. Plants which have a *compound Flower* of a *Discoide Figure*, and the Seed *pappose*, or wing'd with *Down*, but emit no *Milk* : As *Colt's-Foot*, *Fleabane*, *Golden-Rod*, *Ragwort*, *Groundsel*, *Cudweed*, &c.

Corymbiferous VIII. THE *Corymbiferous* Plants, which have a *compound discous Flower*, but their *Seeds* have no *Down*. The Name is taken from the Form of its Flowers, spread out like an *Umbrello* ; as *Corn-Mari-gold*, common *Ox-Eye*, *Yarrow*, *Daisy*, *Camomile*, *Mugwort* ; and others a-kin to them ; as *Scabious*, *Teasel*, *Eryngo's*, &c.

Capitated. IX. THE *Capitated* Plants, whose *compound Flower* is composed of many small, long, fistulous Flowers, whose *Calices* being crowded thick together within a squammose or scaly Coat, emulate an *Head* or *turgid Knop* on the Top of the *Stalk* : As in the *Thistle*, *Burdock*, *Blue-Bottle*, *Knap-weed*, *Saw-worth*. These also have a *Down* adhering to their *Seeds*.

Monospermous. X. Plants with a *perfect Flower*, and having only one single Seed belonging to each single Flower : As *Valerian*, *Corn-Sallet*, *Agrimony*, *Burnet*, *Meadow-Rue*, *Fumitory*, &c.

Umbelliferous. XI. THE *Umbelliferous* Plants, which produce their Flowers in an *Umbel* on the Top of the *Stalk* or *Branch*, resembling in some Degree an *Umbrella*. They have a *Pentapetalous Flower*, i. e. one of five Leaves ; and are *Gymnodispermous*, i. e. have two naked Seeds after each Flower. Of this Kind is *Parsnip*, *Cow-weed*, *Meu*, *Angelica*, *Dropwort*, *Hemlock*, *Saxifrage*, *Burnet*, *Smallage*, *Thorowax*, *Sanic-
cle*, &c.

XII. THE *Stellate Plants*, so call'd because their *Stellated*.
Leaves grow on their Stalks at certain Intervals in Form of a *Radiant Star*. The Flowers are *monopetalous*, but divided into four Segments, like little Leaves. Each Flower is succeeded by two small Seeds at the Bottom of it. Of this Kind is *Mugwort*, *Madder*, *Lady's Bedstraw*, *Woodruff*, *Clivers*, &c.

XIII. THE *Asperifoliate* or *Rough Leaved Plants*; *Asperifoliate*.
they have their Leaves growing alternately or irregularly on the Stalks; their Flower *Monopetalous*, the Edges of which, as well as of the *Calices*, are divided into five Parts, and after each Flower usually succeed four Seeds: As *Hound's-Tongue*, *Wild Bugloss*, *Comfrey*, *Mouse-Ear*, &c.

XIV. THE *Verticillate Plants*, whose Leaves grow *Verticillated*.
by Pairs on the Stalks; their Flowers *monopetalous*, *labiated*, and in many *galeated*; to each Flower succeed four Seeds within the *Perianthum*. The common *Characteristic* of this Tribe is, that the Flowers grow in *Whirls* about the Stalk; though it agrees not to all the Plants of this Genus. To this *Class* belong *Dead-Nettle*, *Horehound*, *Mint*, *Pennyroyal*, *Vervain*, *Motherwort*, *Alehoof*, *Bugle*, *Betony*, *Self-heal*, &c.

XV. *Polyspermous Plants*, or such as have many *Polyspermous*.
naked Seeds succeeding the Flower: As *Marsh-Mallow*, *Pilewort*, *Crow's-Foot*, *Avens*, *Strawberries*, *Cinquefoil*, *Tormentil*, *Meadow-Sweet*, &c.

XVI. *Pomiferous Plants*, which are all such as *Pomiferous*.
bear large Fruit cover'd with a *thick Rind*; whose Flowers are *monopetalous*, *quinquepartite* on the Margin, and growing on the Top of the Fruit. Of this Kind are all *Pompkins*, *Gourds*, *Citruls*, *Melons*, *Cucumbers*, &c.

XVII. *Bacciferous Plants*, or such as bear *Berries*, *Bacciferous*.
as *Briony*, *Honeysuckles*, *Butcher's-broom*, *Solomon's-Seal*, *Lilly of the Valley*, *Nightshade*, *Asparagus*, &c.

XVIII. *Multisiliquous Plants*, or such as have after *Multisiliquous*.
each Flower many distinct, long, slender and sometimes curv'd *Cases* (or *Siliquæ*) in which the Seed is contain'd, and which open and let it drop out when ripe: As *Housleek*, *Orpine*, *Navelwort*, *Bear's-foot*, *Marsh-marigold*, *Columbines*, &c.

XIX. *Vasculi-*

Valculiferous.

XIX. *Vasculiferous Plants*, with *monopetalous* Flowers, either uniform or difform; and after each Flower a peculiar Case, or *Seed-Vessel*, (besides the *Calix*;) and this often divided into many lesser Cells or *Locules*, containing the Seed. Of this Sort are *Henbane*, *Gentian*, *Bindweed*, *Throatwort*, *Toad-Flax*, *Fox-Glove*, *Yellow and Red Rattle*, *Eyebright*, &c.

Siliquous.

XX. Plants which have an uniform *Tetrapetalous* Flower, but bear their Seed in oblong *Siliquous* Cases or *Cods*: As *Stockgillflower*, *Wall-flower*, *Jack by the Hedge*, *Mustard*, *Charlock*, *Radish*, *Wild-Rocket*, *Lady's-Smock*, *Scurvygrass*, *Woad*, &c.

Leguminous.

XXI. *Leguminous Plants*, or such as bear *Pulse*; their Flower *Papilionaceous*, (i. e. in the Form of a *Butterfly* and its Wings expanded) consisting of four Parts, set together at the Edges. These are *Vetches*, *Lentils*, *Peas*, *Beans*, *Liquorice*, *Bird's-foot*, *Trefoil*, *Restharrow*, &c.

Enangiospermous.

XXII. *Enangiospermous* or *Vasculiferous* Plants, with a *pentepetalous* Flower, i. e. one of five Leaves, and a *Capsule* or Case containing the Seed: As *Maiden Pinks*, *Campions*, *St. John's Wort*, *Male Pimpernel*, *Chickweed*, *Crane-Bill*, *Primrose*, *Flax*, *Periwinkle*, *Centory*, &c.

Graminifoliate.

XXIII. *Graminifoliate Floriferous* Plants, with a *Tricapsular* Seed-Case, and a *Bulbose* or *Tuberosc* Root, from the Basis whereof shoot many *Fibres* or Strings to keep it firm in the Earth: As *Garlic*, *Onions*, *Daffodil*, *Hyacinth*, *Saffron*, &c. To these are added also those Plants whose Roots approach to a *bulbous* Form; as *Flower-de-Lis*, *Cookow-point*, *Orchis*, *Broom-Rape*, *Tway-blade*, *Winter-green*, &c.

Culmiferous.

XXIV. *Culmiferous* Plants, which are such as have a smooth, slender, long, hollow, jointed Stalk, with one grassy sharp-pointed Leaf, immediately encompassing the Stalk at each Joint. These bear an imperfect Flower, and their Seed is contained within a *chaffy Husk*: As *Wheat*, *Rye*, *Oats*, *Barley*, and most Kinds of *Grasses*. Under this Head Mr. Ray also places those with a grassy Leaf, but not *culmiferous*: As *Cypress-Grasses*, *Rushes*, *Cat's-Tail*, *Burr-Reed*, &c.

Anomalous.

XXV. *Anomalous* Plants, or such as have no distinguishing generical Character, or no certain Place of Growth;

Growth, but chiefly in Water : As *Water-Lilly*, *Water-Millfoil*, *Pepper-Grass*, *Mouse-Tail*, *Milkwort*, *Dodder*, &c.

EACH of these *Kinds* Mr. Ray divides into various *Species* more or less, and then enumerates the several *Plants* of each *Species*, with their proper *Notes* and *Character* whereby they are to be known. See his *Method of Plants*. This Gentleman has also made a *His Distribu-*
Distribution of Trees and Shrubs into several *Kinds*: *tion of Trees.*
 As (1.) *Coniferous*, which bear Fruit of a *Conical Coniferous.*
Form; as *Fir*, the *Pine*, *Cedar*, *Cypress*, *Tree of*
Life, &c. (2.) *Fuliferous*, or such as bear the long *Fuliferous.*
 pendant Tufts call'd *Catkins*, or *Catalins*; as *Willows*,
Hazels, *Wallnut-trees*, *Poplar*, *Mulberry-trees*, &c.
 (3.) *Pomiferous*, with *umbilicated* Fruit, i. e. such as *Pomiferous.*
 bear pretty large, round, juicy Fruit, with an *Eye*
 (as 'tis call'd) on the Top; as *Apple-trees*, *Pear-trees*,
Quince-trees, *Medlars*, &c. (4.) *Bacciferous*, with *Bacciferous.*
umbilicated juicy Fruit like *Berries*; as the *Gosberry-*
tree, *Currant-tree*, *Myrtle*, *Elder*, *Ivy*, *Laurus-*
Tinus, &c. (5.) *Pruniferous*, or which bear Flowers *Pruniferous.*
 adhering to the Bottom of the Fruit; the Fruit itself
 of the *Plumb Kind*, or with a Stone in the Middle,
 containing the *Seed* or *Kernel*: As the *Plum-tree*,
Cherry-tree, *Sloe-tree*, *Peach*, *Apricot*, *Nectarine Trees*,
 with all others of like sort. To these he adds several
 other anomalous *Genders*, and such as are in part re-
 verse to the foregoing; but 'tis not worth while to
 mention them here; nor yet his minute *Distribution*
 of *Grasses*, *Reeds*, and *Rushes* into their proper *Classes*
 and *Genders*.

THE third great Part of *Botany* makes a *just and Of the third*
natural Division of a Plant into its component Parts, *great Part of*
with a Description of the several Affections, Differences, *Botany.*
and natural Uses of each Part with regard to the Veget-
able Oeconomy. Now the *Parts* of which a perfect
Plant doth consist, are the *Root*, *Stalk* or *Stem*,
Leaves, *Flower*, *Fruit*, and *Seed*. Of these in their
Order.

THE *ROOT* of a Plant is that Body by which it *The Root of a*
 adheres to the Earth or other Body, and by which it *Plant; of*
 naturally draws in the nutritious Moisture which *divers Sorts.*
 nourishes it. *Roots* differ very much both in their
 Form and Make: The most noted *Differences of Roots*
 are

- Fibrous.* are the following. (1.) A *Fibrous Root*, or that which consists wholly of small *Threads* or *Fibres*, as most Sorts of *Grass*, *Pinks*, &c. (2.) A *Tuberous Root*, or that which consists of an uniform fleshy Substance, and is of a *roundish* Figure; as *Turnips*, *Potatoes*, &c. (3.) A *Bulbous Root*; which is either *tunicated*, or cover'd with several *Coats* involving one another, as *Onions*, *Tulips*, &c. or *squamosae*, having several *Scales* lying over one another; as *Lillies*, *Crown-Imperial*, &c. (4.) A *Testiculated Root*, or such as consists of two *Knobs*, resembling a Pair of *Testicles*; as in the *Orchis*. (5.) An *Handed Root*, being a *tuberosae* one, divided as it were into several *Fingers*; as in the *handed Satyrions*. (6.) A *Grumous Root*, or that which is composed of several *Knobs*; as the *Anemone*, &c. (7.) A *Granulous Root*, or kind of *grumous* one with several small *Knobs* resembling *Grains of Corn*; as in the *white Saxifrage*, &c. (8.) A *Tap-Root*, or a *tuberosae* one extended in Length in Form of a *Tap* or *Faucet*; as those of *Carrots*, *Parsnips*, &c.
- The Stalk of a Plant.* THE *STALK* or *STEM* of Plants and Vegetables is the most *principal* or *substantial* Part, which ariseth out of the Root, and sustains the Leaves, &c. and is towards the upper Part generally divided into various *Limbs* or *Branches*. Scarce any thing admits more *Variety* than the *Size*, *Figure*, *Colour*, and *Texture* of this Part. I shall observe only the following Particulars. (1.) That several Stalks of Plants have *Joints* or *Knots*, the Uses of which are said to be the *strengthening* the Stem, and *finer Growth*; for the *Juices*, being filtrated thro' these *Knots*, are transmitted more fine and good to the upper Parts, and to the Fruit. (2.) The Stalks of many Plants are *tubulous* or *hollow*; hence a great Quantity of Air filling this Hollow, conduces to the more expeditious ripening the Fruit or Seed; and also by drying up the *Sap*, and shrinking the *Vessels*, determines the Life of the Plant to a short Period: Hence most *annual Trunks* are observ'd to be hollow. (3.) The *Pith* is the middle Part of the Stalk; consisting of an immense Number of little *Vesicles*, which seem destin'd to *filtrate* and *elaborate* the *finer Juices* necessary for the *Leaves*, *Flowers*, and *Fruit*; according as the *Medullary Substance* of the *Brain* secretes the fine Fluid
- Their Joints or Knots.*
- Their Cavity.*
- Their Pith.*

Fluid call'd the *Animal Spirits*. (4.) The *Wood*, or *The Wood*.

lignous Part of the *Stalk* and *Trunks* of *Trees*: This consists of slender capillary Tubes, running parallel to each other from the Root up the Trunk; these receive a *fine Juice*, which distending their cellular Texture causes the Trunk to grow and increase yearly in Circumference; and those *annular Increments* are visible on a transverse Section of the Trunk, and shew its Age. (5.) Through all the *woody* or *lignous* Part

Vessels.

appears the System of *Air-Vessels* or *Tracheæ*, easily discernable by the *Microscope*; but of these already enough. (6.) The *Bark* or *Rind*, which makes the common Integument of the *Trunk* or *Stem* of *Vegetables*. This Part consists of a fine Skin or *Cuticle*, under which lies the *Cortex* or true Skin, which we call the *Bark*: The Substance whereof is made up of small Bladders, interwoven with fine soft and flexible Fibres, which makes a kind of *reticular Texture*, the *longitudinal Fibres* of which grow hard by degrees, become woody, and leaving the Nature of *Bark*, join the *lignous* Substance in form of *Ringlets*, making the *sappy* Part thereof. But others are of a different Mind concerning the Nature and Use of the *Bark*, the *Theory* of which is not yet settled.

Bark or Rind.

THE LEAVES of a Plant are the next Part to be consider'd. They are properly the most extreme

Of the Leaves of Plants.

Part of a Branch, and the Ornament of the *Twigs*; they consist of various *Fibres* minutely ramified, the *Interstices* whereof are filled with a *parenchymous* Substance. The *Fibres* are analogous to *Arteries* and *Veins*, which bring and return the Sap after it is subtilized and refined in passing the *vesicular Texture* of the *Parenchyma*: Besides this, the Business of *Transpiration* is carried on in the *Leaves*; for by their *excretory* Vessels they exude or *sweat forth* what is superfluous in the Circulation of the nutritious Moisture. That *Leaves* are the Organ of *vegetable Respiration* has been already observed; and that they not only *expire*, but also *inspire* or draw in the Air thro' their numerous Pores, is pretty reasonable to suppose; and that with the *Air*, they imbibe a Part of their *Nourishment* likewise. Lastly, the *Leaves* of *Trees* serve for *Protection* to the *Gems* or *Buds*, and the *Flowers* and *Fruits*, which are hereby screen'd in a good measure from the Injuries of Wind and Weather. These are the principal of

Their Structure.

Transpiration.

Respiration.

The Kinds of
Leaves.

Simple
Compound.

Pennated.

Ramose.

Intire.

Sinuated.

Serrated.

Crenated.

Laciniated.

The Vegetation
of Leaves.

Of the Flower
of Plants.

Parts of a
perfect one.
Empalement.

the many Uses assign'd to the *Leaves* of Plants. The *Size*, *Form*, *Colour*, and *Superficies* of Leaves are so various, that it were endless to recount them all. I shall only observe, that a *Leaf* is said to be *Simple*, which is not divided to the Middle; and *Compound*, when it is divided into several Parts, each resembling a *simple* Leaf. Thus when a *Leaf* is divided into three *simple* ones, it is call'd *Trefoil*; if into five, *Cinquefoil*, &c. or they are said to be *trifoliated*, *quinquefoliated*, &c. *Pennated* Leaves are such as are divided into several Parts, like *Lobes*, placed along the middle Rib, either alternately, or by Pairs; as in *Goat's Rue*, *Agri-mony*, &c. A *Ramose* Leaf is that which is divided into several minute *Branches*; as in *Osmund Royal*, *Female Fern*, &c. An *intire* Leaf is that which has no *Division* on its Edges; as in the *Apple Tree*, &c. A *sinuated* Leaf is that which is cut about the Edges into several large Segments; as in the common *Mallow*. A *serrated* Leaf hath Edges divided like the Teeth of a *Saw*; as in the *Nettle*, &c. A *crenated* Leaf is that which is cut about the Edges into several *obtuse* Segments; as in *Betony*, &c. A *laciniated* Leaf is that which is cut about the Edges into *Jags*, or deep Portions, in an irregular manner; as in the *Horned Poppy*, &c.

THE *Leaves* are protruded from the Stalk or Stem by the great Quantities of *vernal Sap*, in the Form of a *Gem* or *Bud*, wherein they lie curiously folded in *Plaits*, and separated from each other by a fine *Pellicle* or *Membrane*. The *Sap* arising now in great Abundance, enters and fills the Vessels of the tender Leaf; this causes it to expand and extend itself quickly to its just or designed Limits of Growth. The *Afflux* and *Reflux* of the nutritious Juices by the *Foot Stalk* of the Leaf continuing a while, at length abates and declines, the Juices then in the Leaf begin to stagnate and grow putrid, whence a Consumption ensues, and the Leaf dies; which is the Cause of the *Falling* of the *Leaves* in *Autumn*.

THE *FLOWER* is that Parts of a Plant whose curious *Form*, charming *Fragrance*, and beauteous *Colours* so delight our Senses. This is certainly the most choice and delicate Part of Vegetables. A *perfect Flower* is said to have the following Parts: (1.) The *Empalement*, *Calix*, or *Flower Cup*; this is that ex-
terior

terior Part which encloseth the lower Part of the Flower, and is therefore also call'd the *Perianthum*; its Use is to strengthen and preserve the Flower. (2.) The *Petala* or tender fine-colour'd Leaves, which are generally the most conspicuous Part of the Flower; this is also call'd the *Foliature*. (3.) The *Stamina* or *Chives*, which are those fine upright Stems which stand immediately within the *Foliature*, and in many Plants they arise from the *Petala* or Flower-Leaves. (4.) The *Apices* or *Summits*, which grow on the Top of the *Chives* in the Form of Seeds, and contain a fine Powder or Dust call'd the *Farina*, or Meal of the Flower. (5.) The *Stylus* or *Pistil*, which stands in the Middle, within the *Chives*, whose Top is sometimes above, but generally below the *Apices*, and grows on (6.) The *Matrix* or *Ovary*, or Seed-Cafe, in which the Seed (in most Plants) is contain'd and nourish'd in its *Embryo State*; and this Part is generally the *Rudiment* of the Fruit. The Flowers which want any of these Parts are reckon'd imperfect ones.

THERE is, as I have before observed, in Plants as well as Animals, a *Difference of Sex*, and the Flowers are the *Pudenda* or *Organs of Generation* in each Plant. The *Male Parts* of the Flower are the *Stamina*, which bear the *Apices*; and these, as *Testicles*, contain the *prolific Powder* or *Sperm* of the Plant. The *Female Parts* are the *Style*, which serves as a *Vagina* to receive and convey the *spermatic Farina* of the *Apices* to the *Seed Case*, which is the *Matrix* or *Womb*; by which Means the *Embryo Seeds* are impregnated with the *prolific Power* of producing a future Plant.

FLOWERS are therefore some *Male*, some *Female*, and others *Hermaphrodite*. The *Male Flowers* have the *Stamina* and *Apices*, but bear no *Fruit*, and are therefore call'd *Stamineous Flowers*. The *Female Flower* bears the *Style* or *Pistil*, which is succeeded by the *Fruit*. These *Male* and *Female Flowers* grow at some Distance from each other on many Plants, as *Cucumber*, *Melon*, *Gourd*, *Turkey Wheat*, *Turnsol*, *Wallnut*, *Oak*, *Beech*, &c. *Hermaphrodite Flowers* contain both *Male* and *Female Parts*, and are by far the greatest Tribe, as *Tulips*, *Lillies*, *Daffodil*, *Althæa*, *Rosemary*, *Sage*, *Thyme*, &c.

THERE is a large Distribution of Flowers into *Monopetalous*, *Dipetalous*, *Tripetalous*, *Tetrapetalous*, &c.

-A a 2 according

according as they consist of *one, two, three, four, &c.* *Petala* or *Leaves*; but this is not worth any further Regard here.

*Of the Fruit
of Plants.*

THE *FRUIT* is that Part of a Plant which succeeds the *Flower*, and is designed to contain, preserve, nourish, and defend the Seed. Hence, in the Texture of this Part, the more coarse and less concocted Parts of the nutritious Juices are filtered, and sent more pure, elaborate, and spirituous to the *Seed* for the Support and Growth of the tender delicate *Embryo*, or *Plantule* therein contained.

*The Parts
thereof.*

Skin.

Parenchyma.

Branchery.

Core.

THE Composition of the *Fruit* appears to be in general the same as that of the other Parts of the Tree. Thus (1.) the *Cuticle* and *Skin* of the Fruit is only a Production of the *Skin* or outer *Bark* of the Tree. (2.) The *Parenchyma*, or *Pulp* of Fruit, is only an Expansion of the *Blea* or inner Rind of the Tree, swollen and turgid with Juices. (3.) The *Branchery* or *Ramification* are only a Continuation of the woody Fibres of the Branch on which it grows. (4.) The *Heart* or *Core* of Fruit is said to be produced from the Pith or *Medulla* of the Branch, indurated and strengthen'd by the Twigs of the Wood and Fibres insculcated therewith.

*Parts of an
Apple,
Pear,*

*Cherry,
Nut, &c.*

BUT a prodigious Variety obtains in this Part of Nature's Workmanship, each *Species* producing its Fruit and Seed in a different Way and Kind. Thus the *Apple* hath four Parts, viz. the *Skin*, *Parenchyma*, *Branchery*, and *Core*. The *Pear* hath five distinct Parts, the *Skin*, *Parenchyma*, *Branchery*, *Calculary* (or stony Part) and the *Acetary*. The three first of these, and a *Stone*, make the Substance of *Cherries*, *Plums*, &c. The *Nut*, *Acorn*, &c. consist of three Parts, the *Cap*, the *Shell*, and the *Pith* or *Medulla*, inclosing the *Kernel* or Seed. Concerning all which Authors say a great deal with little Certainty.

*The Falling off
of the Flower.*

THE Fibres of the Branches being first extended thro' the *Parenchymous* Part of the Fruit to the Flower, furnish the necessary Matter for the Vegetation of it; but as the Fruit increases, it intercepts the Aliments; and thus the Flower is starved and falls off; while the Fruit proceeds to grow and hasten to a State of *Maturity*.

*Of the Seed of
Plants,*

THE *SEED* is that important Part which is the Medium of all Vegetable Propagation and Production;

it

It is most intimately contain'd in this Year's Plant, and the next Year's Plant is most intimately contain'd in it. This is both the Beginning and End of the Vegetable State.

THE Parts of which the Seed of a Plant doth consist, are (1.) The *Embryo* or *Plantule*, being the future Plant in *Miniature*, and is call'd the *Gem* or *Bud*; this adheres to (2.) The *Placenta* or *Cotyledon*, which serves the same Purposes as the *Secundines*, i. e. the *Chorion* and *Amnion* in Animals. (3.) The common *Tunicle* inclosing the whole Seed.

Its Parts.
Embryo Plant.
Placenta, or
Cotyledon.
Common Coat.

THE Seed receives its Fecundity, as I before hinted, from the *Genital Parts* in the Flower, and being now committed to the Earth, proceeds to vegetate as follows.

THE *Plantule* or *Gem* of the Seed being acted upon and moved by the genial Influence and Warmth of the two great Parents the *Sun* and *Earth*, begins to expand and protrude, or shoot forth its *Radule* or tender Root downward in the Earth, and the *Plumule* or *Infant Plant* upwards; the small *Radicles* absorb the nutritious Juices, which causes the *Plumule* to grow and increase to the destined Size of the Plant: But till the Root is shot, and able to procure Nourishment, the *Plantule* is nourished from the Substance of the *Placentæ* or *Cotyledons*, which it draws to itself by an infinite Number of little Filaments call'd *Funes Umbilicales*, or *Navel-Strings*, and by *Botanists* the *Seed Root*. By this means the *Embryo Plant* receives the cruder Juices of the Earth prepared and purified, being strain'd thro' the very Substance of the *Placenta*. When the Root is able to provide for a Plant, the *Cotyledons*, or two Lobes of the *Placenta*, perish, and the Plant may be said to be deliver'd of its Young or *Fœtal Plant*: So analogous is the Process of Nature in the *Vegetable* and *Animal Oeconomy*!

The Vegetation
of the Gem or
Plantule.

THE fourth and last Part of *Botany* is concerned in the following Particulars: (1.) To give an exact Enumeration, and the Names of all the Plants yet known in every Part of the World, which are at this Time about 16000 in Number. (2.) To specify the peculiar *Notes*, *Marks*, *Properties* and *Characters* of each Plant, by which it may be known and distinguished from any other. (3.) The *Place* of its most common Growth, as on *Land* or *Water*, *wet* or *dry*

The fourth
great Part of
Botany.

Ground, on Walls, Trees, &c. (4.) The Time of Blooming, and their Continuance in Bloom. (5.) To recite their Qualities, and give a just and true Account of the Medicinal Virtues that are known to pertain to each. (6.) To teach the Method of propagating each Species in Gardens, &c. for the various Uses of Ornament, Food, Medicine, or Natural Philosophy. But, as I at first observ'd, these Particulars are of too general a Nature, and alone the Subject of the largest Volumes, and consequently can't be expected here.





Of ANATOMY: Containing a brief Description of all the Parts of a HUMAN BODY.



ANATOMY is the Art which teaches the true Knowledge of the *Human Body* defined. (principally, but of any *Animal Body* in general) as to the *Structure* and *Component Parts* thereof, by an artful and orderly *Dissection*, or *Severing the Parts and Members* of it from one another, by a proper Instrument. This Art is divided into two great Parts, viz. (1.) *Osteology*, or the Doctrine of the *Bones* in general; and (2.) *Sarcology*, which treats of all the *fleshy Parts* of the Body.

Is divided into Osteology and Sarcology.

OSTEOLOGY, (according to the learned Boerhaave) is divided into three Parts, viz. (1.) *Osteogony*; which treats of the *Origin* of the *Bones*, of what *Matter* they consist, and the *Condition* of the *Bones* in their proper Substance when actually form'd. (2.) *Osteography*, which teaches the Knowledge of the *Structure* of the *Skeleton* or *Fabric* of the *Bones*, and the *Diversity* of *Parts* in the *Bone* itself now perfect. (3.) *Synosteology*, or *Synosteography*; which explains all the *Parts* of a *Bone*, by means of which a *Bone* is connected or joined to a *Bone*, with *Motion*, or without *Motion*; with a *Cartilage*, or without it.

Osteology divided into Osteogony,

Osteography,

Synosteology;

SARCOLOGY also has a threefold Division, viz. (1.) *Myology*, which teaches the Doctrine of the *Muscles*. (2.) *Splanchnology*, which treats of the *Bowels* (or *Viscera*) and the great *Organs* of *Animal Life*; as the *Brain*, *Lungs*, *Stomach*, *Intestines*, &c. shewing their *Nature*, *Connection*, *Parts*, *Figure*, *Site*, &c. (3.) *Angiology* or *Angiography*; this exhibits a Description of all the various *Vessels* in the *Body*; as the *Arteries*, *Veins*, *Nerves*, &c. explaining their *Natures*

Sarcology is divided into Myology,

Splanchnology,

Angiology.

and Uses. Of all which take a concise Account in their Order.

Osteogeny explained.

A Bone defined.

The Genesis of the Bones.

Their first State of Fluidity.

Their second, or Fibrous State.

Their third, or Membranous State.

Their fourth, or Cartilaginous State.

Their fifth and last State of a perfect Bone.

Why Bones are hardest and smallest in the Middle.

OSTEOGONY being a Description of all the *Mutations* or *Changes* a Bone undergoes from its first Conception in the Womb to its last State of Perfection in the *Adult Sceleton*, it naturally falls under the following Considerations, viz. (1.) The Definition of a Bone; which is said to be, *The hardest, whitest, and lightest Part of the Body, inflexible and insensible; consisting of a complex Substance of a vascular, fibrous, membranous and cartilaginous Nature.*

(2.) The Genesis of a Bone; this consisteth of various States and Gradations from its first Origin to its last Perfection. For (1.) The first State of a Bone is that of a *terrestrial, nutritious, fluid Matter*, flowing among the Fluids (in *Ovo*) design'd for the Formation of the other Parts of the Body. (2.) The Parts of this original earthy Fluid at a proper Time begin to cohere, unite, and thus form themselves into very *small or fine Capillaments, Threads or Fibres*, soft and porous, which being fill'd with a *Lympha* of the same Nature, they begin to increase, harden, and grow close to one another. (3.) The *Fibres* thus form'd strike into various Directions, and being thus interwoven in the Manner of a *Web*, they constitute a sort of harder, white, broad, elastic Substance, call'd a *Membrane*. (4.) These *Membranes*, as their *Fibres* become gradually hard and dry, do themselves begin to consolidate, and form hard, thin, white Substances, which lie on one another in the manner of thin Plates, or *Lamellæ*, between which run a great Number of *Vessels* carrying Fluids proper for Moisture and Nourishment; which all together constitute or make up the *white, hard, friable and elastic Substance* call'd a *Cartilage*. (5.) Since the largest Artery hath the greatest Pulsation, and this being in the Middle of the Bone, it will there first become a *Cartilage*, which by Degrees becomes harder and more compact, till at last it is perfectly *ossified*, or arrived to the proper Consistence of a Bone; and the Blood-Vessels being now compress'd on all Sides, bring no more Blood than what is sufficient to supply the Place of the decaying Particles; they having now obtain'd their utmost Extent, *Hardness*, and *Solidity*. And hence, since Bones begin to *ossify* in the middle Parts first, 'tis easy to

to understand they will of Consequence be there both *hardest* and *smallest*; while on the contrary they will be more extended towards the *Extremities*, and of a more soft and cartilaginous Nature. Thus much for *Osteogeny*.

OSTEOGRAPHY in the next Place teaches *Osteography*. the *Fabric of the Bones*, or the *Structure and Compages* of a *Skeleton*.

A *SKELETON* then is a *System of Bones* clear'd *A Skeleton, what.* of the *Flesh*, and join'd together in the same Manner as they existed in the Body. In order to understand this aright, it will be necessary to mention the several *Affections* of a Bone, and the Manner of their *Articulations*.

THE *Affections* of a Bone, which I shall here observe, are of two Sorts, *viz. Cavities* and *Prominencies*. The *Cavities* of Bones are deep or shallow. *Affections of the Bones.*

A deep Cavity is call'd *Cotyle*; but the superficial one is call'd *Glene*. *Cotyle.*

The *Prominencies* of a Bone are of two Kinds, *viz. (1.) An Apophysis*, which is a *Protuberance* made by the *Fibres* of a Bone. *(2.) An Epiphysis*, which is only a small Bone set upon the *Glene.*

Extremity of a bigger Bone, which in time unite in one. Both the one and the other are usually upon the *Extremities* of the Bones; and serve either for the *Insertion* of *Muscles*, or the *Articulation* of the Bones. If the *Protuberance* be large and round, it is call'd *Caput*, or the *Head*; if small and round, it is call'd *Condylus*; if sharp, *Corone*, *Styloides*, &c. *Apophysis.* *Epiphysis.*

THE *ARTICULATION* of the Bones are of the following Kinds. *(1.) Diarthrosis*, where there is a manifest Motion. *(2.) Synchondrosis*, which is by means of a *Cartilage*, and with a small and obscure Motion. *(3.) Synarthrosis*, without any Motion at all. *Condylus.* *Corone.* *The Articulation of Bones.*

DIARTHROSIS is again of three Sorts: *(1.) Diarthrosis.* *Enarthrosis*; which is when a large round Head of a Bone is receiv'd into a large Cavity; as of the *Thigh-Bone* in the *Iscium*. *Enarthrodia.*

(2.) Arthrodia, which is when a flat plane Head of a Bone is receiv'd into a shallow Cavity; as the *Articulation* of the *Humerus* with the *Scapula*. *Arthrodia.*

(3.) Ginglymus, which is when the Bones articulated mutually receive and are receiv'd by each other: As in that of the *Humerus* and *Cubit*. *Ginglymus.*

Synchondrosis.

SYNCHONDROSIS is when the Extremities of two Bones are join'd together by means of an intervening *Cartilage*, as in the *Vertebrae*, and the *Ribs* and *Sternum*; where though the Motion of all is manifest, yet that of any two is scarce perceptible.

Synarthrosis Harmonia.

SYNARTHROSIS is also of three Sorts. (1.) *Harmonia*, which is by a simple Contact of the Extremities of Bones, without any mutual Ingress,

Sutura.

and is design'd by a right or oblique Line. (2.) *Sutura*, which is when two Bones are mutually indented into each other, and look like the *Teeth of a Saw*; as in the Articulations of the Bones of the Skull.

Gomphosis.

(3.) *Gomphosis* is when a Bone is fasten'd or socketed into another; as the *Teeth* in the *Jaw-Bones*.

IN the **SCELETON** we shall take a View of the Bones in the following Order, *viz.* Of the *Skull*, the *Spine*, the *Thorax*, the *Pelvis*, the *Arms* and the *Legs*.

Of the Bones of the Skull.
Os Frontis.

THE Bones of the *Skull* or *Cranium* are six, *viz.* (1.) The *Os Frontis* or *Forehead-Bone*; it forms the upper Part of the Orbits of the Eyes, and the *Forehead*; and joins the Bones of the *Sinciput* and *Temples*, by what is call'd the *Coronal Suture*. (2.) and (3.)

Parietalia.

The two Bones of the *Sinciput*, call'd *Parietalia*, which make the Sides of the *Skull*, and are join'd to one another in the Crown of the Head, by the *Sutura Sagittalis*. (4.) and (5.)

Ossa Temporum

The *Ossa Temporum*, or two Bones of the *Temples*; they are situated in the lower Part of the Sides of the *Skull*, and are join'd to the *Parietalia* by the *Sutura Squamosa*. (6.)

Os Occipitis.

The *Os Occipitis*, or Bone of the *Occiput* or Hinder-part of the Head; it joins the *Ossa Parietalia*, by the *Sutura Lambdoidalis*.

The Processes of the Temporal Bones.

THE lower Part of each *temporal Bone*, being thick and hard, is call'd *Os Petrosum* or *Stony Bone*; they have also each three *Processes*, *viz.* (1.) The *Zygomatic*, which runs forward and unites with the Process of the upper *Jaw-Bone*, making the Bridge call'd *Zygoma*, under the Ear. (2.) The *Mamillary* or *Massoide* Process, situated behind the Passage of the Ear. (3.) The *Styliform Process*, which strikes down from the *Basis* of the *Skull* like the End of a *Quill*.

Bone of the Skull and upper Jaw.
Os Sphænoides.

THERE are two Bones common to the *Skull* and Upper *Jaw*, *viz.* (1.) The *Sphænoides*; it is situate just

just in the Middle of the Basis of the Scull; on its lower Side it has five *Apophyses*; two call'd the *Pterigoides*, or Wing-like Processes; two others make the lower and internal Part of the Orbit of the Eyes; and the fifth a very small one, receiv'd in a Cavity at the further End of the *Vomer*. On its inside it has four Processes call'd *Clinoides*, which form a Cavity in the Middle call'd *Sella Turcica*. (2.) The *Os Ethmoides*; it is situated in the Middle of the Basis of the *Forehead-Bone*; in the Middle of it is a small thin Process call'd *Crista Galli*, from its Likeness to the *Comb of a Cock*. This Bone has its Name from the Number of small Holes in it, which make it resemble a *Sieve*. From its under Side there goes a thin Bone, which divides the Cavity of the Nose into two Parts call'd *Nostrils*: The lower Edge of this Bone is grov'd with the *Vomer*. On each Side this Partition are the *Ossa Spongiosa*, or Spongy Bones; the two external Plates whereof make part of the Orbit at the greater *Canthus* or Corner of the Eye.

*Os Ethmoides,
or Cribiforme.*

Ossa Spongiosa.

THE Bones proper to the *Upper-Jaw* are eleven; five on each Side, and one in the Middle: They are as follow. (1.) *Os Mali*, *Zygama*, or Cheek-Bone; it makes the highest Part of the Cheek, and the external Part of the Orbit of the Eye. (2.) The *Os Maxillare* is that Part in which all the Teeth of the Upper-Jaw are set; its upper Side makes the lower and internal Part of the Orbit. (3.) The *Os Unguis*; it is a little Bone in the great Angle of the Orbit; in it is the Hole in which the *Lachrymal Bag* lies. (4.) The *Os Nafi*, or Bone of the Nose; to this the *Cartilages* which divide the *Nostrils* are fasten'd. (5.) The *Os Palati*, or Palate Bone; it makes the Hinderpart of the Roof of the Mouth, and joins the *Os Maxillare*, which makes the Fore-part. (6.) The eleventh and last is call'd the *Vomer*, being like a *Plough-share* as it were; it has a Grove on its upper Part, which receives the *Septum Nafi*, or Partition of the Nose; it is join'd above on the further End to the *Os Sphænoides*, and on its lower Part to the Bones of the Palate.

*Bones of the
Upper-Jaw.*

Os Mali.

Os Maxillare.

Os Unguis.

Os Nafi.

Os Palati.

Vomer.

THE *Lower Jaw* is made of one Bone; its anterior angular Part makes the *Chin*. At each Extremity it has two Processes; the first, which is broad, thin, and pointed, is call'd *Gorone*; the other, which

*Bone of the
Lower Jaw.*

is lower and flattish, with a sort of Head, is call'd *Condylus*; by means whereof the *Lower Jaw-Bone* is articulated into the *Sinus* of the *Os Petrosum*. Each End of the Basis of this Bone is call'd the *Angle* of the *Lower Jaw*.

Of the Teeth.

THE *Teeth* are next to be consider'd; they are the hardest, smoothest, and whitest Bones of the Body. They are formed in the Cavities of the Jaws, and are of the following Sorts. (1.) The *Incisivi*, or *Cutters*, so call'd because pretty broad and sharp; they stand foremost in each Jaw, and in each Jaw four. (2.) The *Canini*, or *Dog-Teeth*; these are two in each Jaw, one on each Side of the *Incisivi*; they are thick, round and pointed, and are contain'd above two Thirds in their *Alveoli* or *Sockets*. (3.) The *Molares*, or *Grinders*; they are generally ten in each Jaw, five on a Side. Their Extremities are broad and uneven, and are inserted in their *Sockets* with *two, three, and sometimes four* Roots. With these we *grind*, as it were, our *Aliments*, to a State fit for Digestion in the Stomach.

Of the Spine, and Vertebrae.

THE *SPINE* or *Back-Bone* is made up of a Chain of small Bones, which reaches from the Basis of the Scull to the Seat of the Body. These small Bones are call'd *Vertebrae*; of which there are reckon'd seven in the Neck, twelve in the Back, five in the Loins, six in the *Os Sacrum*, and four in the *Os Coccygis*. In each *Vertebra* we distinguish two Parts, viz. the *Body*, and the *Processes* thereof. The Body of the *Vertebra* is round and convex on its Fore-part, and somewhat concave on its Hind-part. Its upper and lower Sides are plane, each cover'd with a *Cartilage*, for the sake of the *Motion* and *Flexure* of the Body. Each *Vertebra* has three Sorts of *Processes*, viz. (1.) *Transverse* or *lateral*, one on each Side; they are nearer the Body of the *Vertebra* than the rest. (2.) Four *Oblique Processes*, two on the upper Part, and two on the lower; by these the *Vertebrae* are articulated to one another. (3.) One *Acute* one, on the hindmost Part of the *Vertebra*. These *Processes*, with the hinder and concave Part of the Body of the *Vertebrae*, make a large Hole in each *Vertebra*, which Holes all together make a *Chanel* for the Descent of the *Spinal Marrow*.

Their Processes

THE *Vertebræ* of the *Os Sacrum* coalesce in Adults, and make but one large triangular Bone, whose Basis is tied to the last *Vertebra* of the Loins, and its Point to the *Os Coccygis*, which, with its little *Vertebræ* each less than the other, ends the Spine in a cartilaginous Point, like a small Tail curv'd inwards.

IN the *THORAX* of the *Skeleton* we observe the following Bones. (1.) The *Ribs*, which are twenty-four in Number, twelve on each Side, articulated to the twelve *Vertebræ* of the Back. They are of two sorts, viz. seven *True Ribs*, which have their cartilaginous Extremities, inserted into the *Sinus* of the *Sternum*; and five *False Ribs*, which are shorter and softer, and their Extremities tied to one another; except the last, which is tied to the *Midriff*, or else to the descending oblique *Muscle*. (2.) The *Sternum*, or Breast-Bone; this, from seven or eight Bones in Infants, hardens and unites into three at seven Years of Age: It is situated in the Middle of the *Breast*: It receives the Cartilage of the *Ribs*, and ends itself in a cartilaginous Point, call'd *Cartilago Xiphoides* or *Ensisformis*. (3.) The *Claviculæ*, or Chancel-Bones; they are two, one on each Side, on the upper Part of the *Breast*, they are pretty long and small; at one End they are articulated to the *Sternum*; at the other, to the *Production* of the *Scapula* call'd *Acromion*. Their Use is to sustain and keep the *Scapulæ* at a proper Distance from the *Sternum*. (4.) The *Scapulæ*, or Shoulder-Blades; they are two large and broad Bones in form of a scalenous Triangle; they are situated on each Side of the upper and back Part of the *Thorax*. The broad End is call'd the *Basis*; and each hath three *Processes*; one running along the Middle, call'd the *Spine*, the End of which is call'd *Acromion*, and receives the *Clavicles*: The second is a little below, call'd *Coracoides*, from its Likeness to a *Crow's Bill*; The third *Process* is call'd *Cervix*, and receives the Head of the *Humerus*, or Arm-Bone, in its *Sinus*.

THE *PELVIS* or Basin of the *Skeleton*, is form'd by the following Bones, viz. (1.) The *Os Sacrum*, and (2.) The *Os Coccygis* on the hinder Part, both already described. (3.) The *Ossa Innominata*, or nameless Bones; which in *Infants* consist of three separate Bones, but in *Adults* they unite and make but one Bone, in each of which they distinguish three Parts,

viz.

Os Ilium.

viz. (1.) The *Ilium*, or Hip-Bone ; which is the broad superior Part join'd to the *Vertebræ* of the *Os Sacrum* ; its Edge is almost semicircular, and is tipt with a

Os Pubis.

Cartilage. (2.) The *Os Pubis*, which is the inferior and fore Part, and join'd with its Fellow on the other Side, makes the fore Part of the *Basin* or *Pelvis*, as the *Iliæ* does the Sides. (3.) The *Os Ischium* or *Cox-*

Os Ischium,
or Coxendix.

endix ; this is the lower and hinder Part ; it has a large Cavity or *Acetabulum*, which receives the Head of the Thigh-Bone : At its lower Part it has a large Protuberance, which makes the Seat of the Body, or that on which we sit.

Bones of the
Arm and
*Hand.**Humerus.*
Ulna.

IN the *ARM* are the following Bones, *viz.* (1.) The *Humerus*, or Shoulder-Bone ; it is long and round, is articulated with the *Scapula* at the upper End, and at the Lower with the *Radius* and *Ulna*, by a *Ginglymus*. (2.) The *Ulna*, a long and hard Bone of the *Cubitus* or fore Arm ; it reaches from the *Elbow* to the *Wrist* ; at its upper End it has two Processes, which are receiv'd into the fore and hind *Sinus's* of the Extremity of the *Humerus* ; the external or hindmost is the biggest and longest, call'd *Olecranon*, and makes the sharp Point of the *Elbow*. At its lower End it is articulated with the *Radius* and the Bones of the *Wrist*. (3.) The *Radius*, another Bone of the *Cubitus* ; it accompanies the *Ulna* from the *Elbow* to the *Wrist*. In its upper End it receives the outer Protuberance of the *Humerus* in a small Cavity, and near its lower End it has a small Cavity which receives the End of the *Ulna* ; and in its Extremity it has two *Sinus's*, which receive the Bones of the *Wrist*. (4.)

*Radius.**Of the Car-*
pus.

The Bones of the *Carpus*, or *Wrist* ; they are little Bones of different Figures and Bigness, are eight in Number, placed in two Ranks, four in each Rank. The first Rank is articulated with the *Radius*, the second with (5.) The Bones of the *Metacarpus*, or Back of the Hand : These are four in Number, which answer to the four *Fingers*, with one on the Side answering to the *Thumb* : They are articulated with the Bones of the *Wrist* and *Fingers*. (6.) The Bones of the *Fingers* and *Thumb* ; they are fourteen in each Hand, three in each Finger, and two in the *Thumb*. The Order in which they are disposed, is call'd the first, second, and third *Phalanx* ; the first is longer than the second, and the second than the third : They

*Metacarpus.**Of the Fingers*

are

are severally articulated with the Bones of the *Metacarpus* and with one another in each Finger; which Articulations make the *Joints* or *Knuckles*. (7.) The *Ossa Sesamoidea*, like Grains of *Sesamum*; they are about twelve in each Hand, placed at the Joints of the Fingers, under the *Tendons*, where they serve the Office of *Pulleys*.

THE Parts of the *LEG*, and the Bones thereof, are very analogous to those of the *Arm*; for (1.) In the *Thigh* there is one large long Bone answering to the *Humerus*. At its upper End it has three *Epiphyses*; the first is the large round Head, by which it is articulated in the *Acetabulum* of the *Coxendix*; the second is call'd the *Trochanter Major*, and the third the *Trochanter Minor*. The lower End of this Bone is articulated by the *Ginglymus* with (2.) The *Tibia*, which is the greatest of the two Bones of the *Leg*, the other being (3.) The *Fibula* or *Perone*; these two answer to the *Ulna* and *Radius* of the *Cubit*, and their Articulations with each other are much the same. At the lower End of the *Tibia* there is a Process, which forms the internal *Ankle*, as the external *Ankle* is form'd by a Process of the *Fibula*. The Articulation of the *Tibia* with the *Thigh Bone*, makes the *Knee*; in which there is, (4.) A little Bone call'd the *Patella* or *Knee-Pan*; it lies under the *Tendons* of the Muscles which extend the *Leg*, and serves as a *Pulley* to facilitate their Motion. (5.) The Bones of the *Tarsus*, or *Instep*, are seven; the *Astragalus* or *Talus*; the *Calcaneum*, or *Heel-Bone*; the *Os Naviculare*; the *Ossa Cuneiformia*, or *Wedge-like Bones*, which are three; and the *Os Cubiforme*, or *Cube-like Bone*. (6.) The *Metatarsus*, or *Back of the Foot*, hath five Bones; and (7.) *Toes* fourteen: Besides, (8.) The *Ossa Sesamoidea*; all which are in *Form* and *Articulation* so like those of the *Metacarpus* and *Fingers*, before described, that nothing further need be said concerning them.

HAVING dispatch'd *Osteology*, we proceed to *Sarcology*, the second great Part of *Anatomy*. In order to this, *Anatomists* divide the Trunk of the human Body into three principal *Regions* or *Cavities*. (1.) The *Head*, or upper Cavity, which contains the *Brain* and *Cerebell*; the *Eyes*, *Nose*, *Ears*, and *Tongue*, the *Organs of Sense*. (2.) The *Thorax* or *Breast*, which contains

contains all from the Neck to the Midriff. (3.) The *Abdomen*, or lower Cavity, which is what we vulgarly call the *Belly*. The upper Part of the *Abdomen* is call'd *Epigastrium*, and its two Sides the *Hypochondria*. The middle Part of the *Abdomen*, extending from two Fingers Breadth above to the same below the *Navel*, is call'd the *Regio Umbilicalis*. The lower Part of the *Abdomen* is call'd the *Hypogastrium*; its Sides are call'd *Inguina* or Groins.

*Of the common
Integuments
of the Body.
Epidermis, or
Cuticle.*

*The Cutis, or
Skin.
Papillæ Pyra-
midales.*

*Miliary
Glands.
Membrana
Adiposa.*

*Membrana
Carnosa.*

The Hair.

The Nails.

BEFORE we can speak of *Myology*, or the Doctrine of the Muscles, we must first take Notice of the common *Integuments* or Coverings of the Body and its Parts; and they are as follow: (1.) The *Epidermis*, *Cuticle*, or Scarf-Skin; this is that very fine Pellicle that rises in a *Blister* upon any Burning, &c. It adheres close to the true Skin, and serves to defend the Extremities of the fine Vessels. (2.) The *Cutis*, or true Skin; in this we observe three Parts: First, an infinite Number of *Papillæ Pyramidales*, which are the Ends of the Nerves of the Skin, which occasion the Sense of *Feeling* on the Surface of the Body. Secondly, A *Web of Nervous Fibres* and *Vessels* interwoven, and is the *Parenchyma* or Substance of the Skin. Thirdly, Under this is an infinite Number of *Miliary Glands* encompassed with Fat: These are the *Spiracles* of the Body, and breathe forth the Matter of Sweat and *insensible Transpiration*. (3.) The *Membrana Adiposa*, or Membrane of Fat; it lies immediately under the Skin; the Fat is contain'd in a Texture of an infinite Number of fine transparent Vesicles or Cells. (4.) The *Membrana Carnosa*, or fleshy Membrane; it lies immediately under the *Adiposa*, and adheres to it; it is conspicuous in *Infants*, but in *Adults* it becomes obscure, and is hid by the Fat, which overspreads it. (5.) The *Hair* is reckon'd one of the *Common Teguments* of the Body; each Hair has a round *bulbous Root*; is fistulous or hollow in many Cases, and differs in Colour according to the Temperament of Persons. (6.) The *Nails* are a Covering to a Part of the Body only; they are supposed to be only the Sheaths or Cases of the *Papillæ* of the Skin on the Fingers and Toes, which dry, harden, and lie close to one another, and are protruded constantly forwards in the Form of an *horny Substance*.

THE next Step to the Doctrine of the Muscles, is Of the principal Membranes, which wrap up and enclose the Parts: They are of various sorts as follow: (1.)

The *Perioseum*, which is that fine Membrane immediately investing the Bones, and which is of a most exquisite Sense. (2.) The *Meninges* of the Brain, which are two; the first is call'd *Dura Mater*, which is strong and thick, and covers all the Cavity of the

Perioseum.
Meninges, or Pia and Dura Mater.

Scull; and by its Processes makes the Divisions of the two Lobes of the Brain and Cerebell.

The second is call'd the *Pia Mater*, which is a fine and delicate Membrane immediately covering the Substance of the Brain: They are both continued from the Brain with the Spinal Marrow. (3.) The *Pleura*, which is a

Pleura.

double Membrane that covers all the Cavity of the *Thorax*, is fixed to the *Perioseum* of the Ribs, and covers the Midriff. (4.) The *Mediastinum*; it is a

Mediastinum.

double Membrane dividing the Cavity of the *Thorax* into two Parts; thro' the Middle from Top to Bottom; it is form'd by a Continuation of the *Pleura* coming from the *Sternum*. (5.) The *Pericardium*, so call'd

Pericardium.

from its containing the Heart, as in a kind of Purse or Bag; it lies in the Duplication of the *Mediastinum*, which firmly adheres to it, as its Point does to the

middle Part of the Midriff. (6.) The *Diaphragm* or Midriff; this is rather a double Muscle than a Membrane; it divides the *Thorax* from the *Abdomen*. Its

Diaphragm.

extreme Parts consist of muscular Fibres, which all terminate in an *Aponeurosis*, or nervous Part, in the Middle; it is perforated with several Holes, for the

Passage of Vessels. (7.) The *Peritonæum*; it is a

Peritonæum.

thin soft Membrane which covers the Cavity of the *Abdomen*, and encloses all its Contents; it is connected with the Midriff and Muscles of the *Abdomen*; 'tis a

double Membrane, and contains in its Duplicatures the *Umbilical Vessels*, the *Bladder*, the *Kidneys*, *Ureters*, *Spermatic Vessels*, &c. Its external Part has two

Its Duplicatures.

Productions which pass through the Groins out of the Belly to convey the *Spermatic Vessels* in Men to the

Testicles, and for a Passage to the round Ligaments of the Womb in Women: These are all the Membranes that can be simply consider'd as such, or that deserve Notice in this Place. We are now arrived to

MYOLOGY, or the Doctrine of the Muscles; Of Myology, concerning these we shall take Notice of the following

ing Particulars, viz. The *Definition* of a Muscle, its *Parts*, the *Sorts*, the *Denomination*, the *Actions* or *Office*, and *Number* of Muscles in each Part, and the whole human Body.)

A Muscle defined.

A *MUSCLE* is defined to be, *A Bundle of fleshy and often tendinous Fibres, of which all in the same Plane are parallel to one another; the Fibres are severally invested with a particular Membrane, and all together enclosed in one common one.*

The Parts of a Muscle.
Belly.

THE *Parts* of a Muscle are, (1.) The *Body* or *Belly* of the Muscle, which is the middle Part generally, and is made up of the fleshy Fibres, which are red, lax and spongy, containing a Number of small Cavities, and are tied together by a Number of small transverse Fibres, which go from one to another, and connect them all together. (2.) The *Tendons*, which are the two Extremities; of which, that by which it arises is call'd the *Head*, and the other by which it is inserted into any Part is call'd the *Tail* of the Muscle. They consist of *tendinous Fibres* equal in Number to those of the *Body* of the Muscle.

The Kinds of Muscles.

THE *Kinds* of Muscles are various; as (1.) Some are *Simple*; which have all their Fibres parallel and in the same Direction. (2.) Some *Compound*; these have the fleshy Fibres of several Planes crossing one another, or of different Directions; and may be divided into as many *simple ones* as is the Number of such Planes of Fibres. (3.) Some Muscles have several Heads, or arise by several Tendons; as the *Biceps* hath two, the *Triceps* three, &c. (4.) Some have *one Tendon* common to them all, as the *Tendo Achillis*. (5.) Some have only a small long *Body* which divides into several small Tendons at the End. (6.) And some have two Bodies each, as the *Digastricus*. (7.) Some Muscles have no *Tendons*, as the *Quadratus* on the Wrist, and several of the Face, &c. (8.) Some have Tendons only at one End; with various other Differences in the Form and Make of Muscles.

Their Names.

As to the *Denomination* of Muscles, they are differently named on various Accounts; as (1.) From their *Size*; as *Vastus*, large; *Gracilis*, slender, &c. (2.) From their *Form*; as the *Deltoides*, *Quadratus*, &c. (3.) From the *Parts* they are situated on; as the *Frontales*, on the Forehead; *Occipitales*, on the Occiput, &c. (4.) The *Manner* of their Situation; as *Inter-*

nus, Externus, &c. (5.) From the Parts of their *Origin* and *Insertion*, as the *Sternothyroides*, which arises from the *Sternum*, and is inserted into the Cartilage call'd *Thyroides*. (6.) From their Course or Direction; as the *Rectus, Obliquus, Transversalis, &c.* (7.) From their Manner of acting; as *Elevatores*, which lift a Part up; *Erectores*, which erect a Part; *Extensores*, which extend any Part; *Flexores*, which bend it, &c. (8.) From the Parts of which they consist; as the *Biventer*, which hath two Bellies; *Triceps*, which hath three Heads or Tendons, &c. (9.) From the Texture; as *Membranosus, Semi-nervosus, &c.* (10.) From their Length, &c. as *Longus*, long; *Brevis*, short, &c.

THE Office or Function of the Muscles is to move the several Parts of the Body in all the necessary Directions of their several Motions; and this is perform'd by the Contraction of the Muscle, which shortens it, and causes it to draw the Part into which it is inserted, towards that whence it arises; and this Contraction is produced in the Muscle by the Influx and Rarification of the Blood and Spirits distending the Cavities of the Fibres; which is the mechanical Cause of all Muscular Motion. And since most Parts of the Body are pair'd, or have a contrary Motion, the Muscles are reckon'd by Pairs; and those which produce the contrary Motion in a Part, are said to be *Antagonist Muscles* to each other.

The Action or Function of a Muscle.

THE Number of the Muscles in the human Body is computed by Dr. Keill in Pairs belonging to every Part, as follows: Of the Forehead 1 Pair, the Hind-head 1, the Ears 6, the Eyebrows 1, Eyelids 2, Eyes 6, Nose 3, Lips 6, and a single one; the Cheeks 1, Lower Jaw 6, Uvula 2, Tongue 3, Os Hyoides 5, the Pharynx 2, Larynx 7, Head 10, Thorax 29, Abdomen 5; of the Vertebrae 7, of the Pudenda in Men 4, the Clitoris 1, of the Bladder a single one, Anus three single ones; of the Shoulder-Blades 4, Shoulder-Bone 9, Cubit 6, the Radius 4, Wrists 4, Palms of the Hands 2, Fingers 15, of the Thumbs 7, Fore-fingers 2, Little-fingers 2, of the Thighs 13, the Legs 11, the Feet 8, the Toes 24 Pair; so that in all there are 446 single Muscles in the Body; though some make more, and others reckon fewer.

Their Number in the several Parts of the Body.

Of *Adenography*.

A *Gland*,
what.

Conglobate.

Conglomerate.

Of *Splanchnology*.

The *Brain*.

The *Cerebrum*.

BEFORE we consider the Doctrine of the *Viscera* or Bowels, it may be proper to premise a few things concerning the Doctrine of the *Glands*, which *Anatomists* call *Adenography*, as a proper Transition thereto.

A *GLAND* (vulgarly call'd a *Kernel*) is a fleshy Substance of a peculiar Nature, whose Use is to secrete and separate the Fluids from the Mass of Blood. They are of two sorts, viz. (1.) A *Conglobate Gland*; which is a little smooth Body wrapt up in a fine Skin, admitting only an Artery and Nerve to pass in, and a Vein and excretory Vessel to pass out; and these may be call'd *Simple Glands*. (2.) A *Conglomerate Gland*; which is composed of several *conglobate* or *simple Glands*, all tied together, and wrapt up in one common Tunicle or Membrane; whose several excretory Ducts do sometimes all unite in one common Pipe, as in the *Pancreas*; and sometimes form several Pipes, through which their Liquor is excreted. The Structure of a *Gland* is supposed to be nothing but the Complication of a Branch of an Artery, whose farthest Extremity becomes the excretory Duct thereof. Proceed we now to the second great Part of *Sarcology*, viz.

SPLANCHNOLOGY, which considers the various *Viscera* or Bowels contain'd in the three Cavities of the Body: Those in the upper Cavity or Head are, the *Brain*, the *Cerebell*, the *Eyes*, the *Ears*, the *Nose*, and the *Tongue*; of which in order.

THE *BRAIN*, contain'd within the *Dura Mater*, consists of two Parts, viz. the *Cerebrum*, which lies on the fore Part; and *Cerebellum*, which lies behind; both contain'd in the *Cranium* or *Skull*, as in a Case of Bones. The *Cerebrum* is of an oblong Figure, and its Surface full of Turnings and Circumvolutions; its external Substance is said to be *Cortical* or *Cineritious*, being soft, glandulous, and of the Colour of Ashes. Its internal, call'd the *Medullary Substance*, is finer, white and fibrous; from whence the Nerves proceed: this going out of the *Skull* is call'd the *Medulla Spinalis*, or *Spinal Marrow*.

THE *Brain* is divided by the first Process of the *Dura Mater* into the *Right and Left Side*; which, when they come to join, leave a Space forming three *Ventricles*, or *Centrum Ovale*; the upper Part or Covering whereof is call'd the *Corpus Callosum*. The

Bottom

Bottom of this Space is the internal Substance of the two Sides gather'd together, as it were, in two Bundles, which are call'd *Crura Medullæ Oblongatæ*; upon them are the *Protuberances* call'd the *Corpora Striata*, and the *Thalami Nerv. Opticorum*. These *Crura* uniting form a Body call'd the *Medulla Oblongata*, upon which are four Prominences call'd the *Nates* and *Testes*. From the third Ventricle goes a small Hole to the Conduit call'd *Infundibulum*, which enters the Substance of the *Glandula Pituitaria*, situated in the *Sella Turcica*, in the Basis of the Scull, and surrounded with a *Plexus* of some Branches of Arteries, call'd the *Rete Mirabile*. In the hinder Part of this Ventricle is another small Hole call'd *Anus*, in the upper Part of which is situated the famous *Glandula Pinealis*, which *Descartes* imagined was the Seat of the Soul. These are the chief Parts of the *Cerebrum*, and give a general Idea of its Structure.

THE *CEREBELLUM* is much less than the *Cerebrum*, and is also composed of a Cortical and Medullary Substance; its Superficies consists of Foldings like Segments of Circles, one within another; they grow less as they approach the fore and hind Part, where they seem to resemble two *Worms*, and are therefore call'd *Processus Vermiformes*. The Part of the *Medulla Oblongata*, which is between the *Cerebrum* and *Cerebellum*, is call'd the *Isthmus*. The Use or Function of the Brain (which is a Gland of the Conglobate Sort) is to separate the finest and most subtil Parts of the Blood, call'd *Animal Spirits*, which are received by the Nerves, and convey'd to all Parts of the Body; in which they are the Cause of all that *Sensation* we call *Feeling*.

THE *EYE* is the noble Organ of Sight; on the external Parts it is adorn'd above with a curved Row of *Hairs*, call'd the *Eye-brow*; and closed with two *Eyelids*, which are edged with a Border of Hairs call'd *Cilia*. The Meeting of the *Eyelids* make two Corners call'd the *greater* and *lesser Canthus* of the Eye; within the great *Canthus* lies the *Glandula Lachrymalis*, which separates the Matter of *Tears* for moistening the Eye, and inner Membrane of the Nostrils, where 'tis convey'd from the *Lachrymal Bag* by a small Pipe thro' the *Os Lachrymale*. The Globe

of the Eye is moved by four strait Muscles and two oblique ones.

Its Coats.
The Conjunctiva.
Sclerotica.

Cornea.

Choroides.

Uvea.

Retina.

Of the Humours of the Eye.
Aqueous.
Crystalline.

Vitreous.

Of the Ear.

Its External Part.

THE *Coats* of the Eye are (1.) The *Conjunctiva*, which makes the White of the Eye, and lines the inner Part of the Eyelids, joining the Globe to the Edges of the Orbit. (2.) The *Sclerotica*; it is thick, hard, and smooth; opake behind, but transparent before, where it makes (3.) The *Cornea*, which is surrounded by the White of the Eye, and has a most exquisite Sense. (4.) The *Choroides*; it lies under the *Sclerotica*, and is much thinner than it. In this Coat is a small Hole before, call'd *Pupilla*, or Pupil of the Eye. (5.) The *Uvea*; it surrounds the Pupil, and by its muscular circular Fibres contracts and dilates the Pupil as Occasion requires; it lies on the Crystalline Humour; the Outside of this Coat is call'd the *Iris*, of different Colours in several People. On the Inside is the *Ligamentum Ciliare*, by the Contraction of whose Fibres the Eye is made more prominent, and the *Axis* of Vision lengthen'd. (6.) The *Retina*, or Net-like Expansion of the medullary Fibres of the *Optic Nerve* over the Bottom of the Eye, upon the Surface of the Glassy Humour. On this Coat the Impressions of Objects are made, in order to be convey'd to the *Sensory* of the Brain.

THE *Humours* of the Eye are three; viz. (1.) The *Aqueous*, or Watry Humour; it lies under the *Cornea*, and makes the fore Part of the Globe. (2.) The *Crystalline Humour*; it lies next behind the *Aqueous*; it is the least of the Humours, but the most dense; its Form is that of a double *convex Lens*; it is cover'd with a fine Coat call'd *Aranæa*. (3.) The *Vitreous* or glassy Humour; it is very much like the *White of an Egg*, fills all the hind Part of the Cavity of the Globe, is the largest of the three Humours, and is contain'd in a Coat of the same Name. By it the *Crystalline* is adjusted to a proper Distance from the *Retina* for *distinct Vision*, the Manner whereof has been already explained.

THE *EAR* is the Organ of *Hearing*; and is next to be described. It is divided into the *External* and *Internal* Part; the *External* is divided into the *Pinna* or upper Part, and *Fibra* or Lobe, which is the lower. The Parts of the *Pinna* are the *Helix*, or circular Border of the Ear; and *Anti-helix*, which is a Semi-circle

circle within the other : The lower End of this makes a Prominence call'd the *Anti-tragus*, with respect to another opposite to it call'd the *Tragus*, by reason of some Hair that is on it. The Cavity made by the Extremities of the *Helix* and *Anti-helix* is call'd *Concha*. The Hollow in the Middle of the Ear is call'd *Alvearium* ; from whence there goes a Passage to the *Tympanum* call'd *Meatus Auditorius*.

AT the End of the *Meatus Auditorius* is a thin transparent Membrane placed a little obliquely across the Passage, call'd the *Membrana Tympani*, or Head of the Drum ; for the Cavity behind this Membrane is call'd the *Tympanum* or Drum, in which there are four little Bones, from their Shape call'd the *Malleolus* or Hammer, the *Incus* or Anvil, the *Stapes* or Stirrop, and *Os Orbiculare* or round Bone. The next Cavity is call'd *Vestibulum*, in the *Os Petrosum* ; into it open the semicircular Pipes of the third Cavity call'd the *Labyrinth*. The last Cavity of the Internal Ear is call'd *Cochlea* from its Likeness to a *Snail's Shell*. The *Auditory Nerve*, being finely expanded over the internal Surface of these Cavities, receives the Impressions of the included Air according as it is agitated by the Motion of the external Air beating on the *Membrana Tympani*, thus exciting in the Sensory of the Brain the *Ideas of Sounds*.

Its Internal Parts.

THE NOSE is appointed not only for the Organ of the Sense of Smelling, but also for an *Emunctory* to the Brain, and for Respiration. Its upper Part consists of two Bones closely join'd together on the upper Side ; its lower Part is made of four Cartilages, two of which are fix'd to the two Bones aforesaid, and also join'd on the upper Side ; the other two lie on the lower Ends of these, being tied thereto by a Membrane, and are call'd *Alæ Narium*. The Cavity of the Nose is divided into two Parts, call'd *Nares* or Nostrils, by a Partition *bony* on the upper Part, and *cartilaginous* on the lower : The upper End of each Nostril divides into two Cavities, of which one goes to the *Os Spongiosum*, and the other opens behind the Palate into the Mouth for Respiration. The *Ossa Spongiosa* fill the upper Cavity of each Nostril, the several *Lamina* of which, being cover'd with a fine Membrane on which the Fibres of the *Olfactory Nerve* are spread, become the immediate Organ of Smelling.

Of the Nose and its Parts.

Smelling. The Cavity of the Nose is cover'd with a glandulous Membrane; its Glands separate the Matter we call *Mucus*, which, with the Hair growing on it, call'd *Vibrissi*, prevent any Filth from ascending too far into the Nostrils.

Of the Mouth.

Lips.

Gums.

Palate.

Uvula.

Glands of the Mouth.

Of the Tongue.

Papillæ Nervosæ.

THE MOUTH consists of the Lips, the Gums, the Palate, the *Uvula*, and the Glands; of which in Order. (1.) The *Lips* are made up of several Muscles, which give them all their various Motions for shutting and opening the Mouth, and articulating the Voice. (2.) The *Gums* are a hard sort of Flesh form'd by the Union of the *Periosteum* and the internal Membrane of the Mouth; they are set about the Teeth to keep them firm in their Sockets. (3.) The *Palate*, or Roof of the Mouth, is cover'd with a pretty thick Membrane, in which are a great Number of small Glands, which discharge a Liquor for moistening and dissolving the Aliments. (4.) The *Uvula* is a Production of the internal Membrane of the Mouth; its Substance is lax and glandulous; it hangs from the Roof of the Mouth about the *Larynx*, between the *Tonsils*; it is moved by two Pair of Muscles, which give it Motions proper for articulating the Voice, and to prevent any thing's regurgitating into the Nose in Deglutition. (5.) The *Glands* of the Mouth are of several Sorts, as the *Parotides* under the Ear, the *Maxillares* under the Jaw, the *Sublinguales* under the Tongue, the *Tonsillæ*, or Almonds, at the Basis of the Tongue; with several other small ones; all which serve to separate the *Saliva* or Spittle to moisten the Food in Mastication.

THE TONGUE is the grand Organ of Taste and Speech; it is connected to the *Os Hyoides* and to the *Larynx*, by a Ligament in the Middle of its lower Side; it is of a muscular Substance, and is cover'd with two Membranes; the external hath a great Number of *Papillæ Pyramidales*, which seem to serve as Cases to the *Papillæ Nervosæ*, which lie under them in the internal Membrane. These nervous *Papillæ* being made of the Extremities of the Gustatory Nerve of the Tongue, are the immediate Organ of Tasting. The Tongue is moved by three Pair of Muscles, the *Styloglossus*, *Genioglossus*, and *Ceratoglossus*, and the *Os Hyoides*, with Motions proper

per for the forming and articulating the various Sounds of Speech.

THE *Upper* is join'd to the Middle Cavity of the Body by the *Cervex* or Neck, in which is the *Jugulum* or Throat; which contains two remarkable Parts, the *Oesophagus*, and the *Trachea Artera*, or Wind-Pipe. *Of the Viscera in the Thorax.*

THE *OESOPHAGUS*, or Gullet, is a long round Canal, by which the Aliments descend from the Mouth to the *Stomach* in the *Abdomen*: It is composed of three Coats, the first membranous, the second fleshy and muscular; the last, or inmost, is white, and besmeared with a soft slimy Substance, separated by the Glands between this and the second Coat, to facilitate the Descent of the Aliments in Deglutition. The upper End of the Gullet is call'd *Pharynx*, and is moved by two Pair of Muscles, viz. *Pharynx*, the *Stylo-pharyngæus*, and the *Oesophagæus*, and the peristaltic Motion of the fleshy Fibres of its Coats; by all which *Deglutition*, or Swallowing, is performed. *The Oesophagus.*

THE *TRACHEA ARTERIA*, or Wind-Pipe, is the Passage from the Mouth to the Lungs. The upper End of it is call'd the *Larynx*; it lies below the Root of the Tongue, before the *Pharynx*; it is composed of five Cartilages, the first call'd *Scutiformis* or *Thyroides*, the second *Cricoides* or *Annularis*, the third and fourth *Arytænoides*; these make the *Rimula* call'd the *Glottis*: The fifth is the *Epiglottis*; this covers the *Glottis* or Mouth of the *Larynx*, so that none of the Aliments may descend thro' the *Trachea* in Eating and Drinking. The Tube of the *Trachea* is composed of annular Cartilages, which are at small and equal Distances from one another. The hind Part of these Cartilages are membranous, for the Conveniencies of the *Oesophagus*, which lies along that Part. The Use of the *Larynx* is to form and tune the Voice, and of the *Trachea* to convey Air to and from the Lungs. This brings us to the Middle Cavity, in which we first meet with *The Trachea Arteria.* *Larynx, its Cartilages.* *Its Use.*

THE *LUNGS*; they are divided into two Lobes by the *Mediastinum*; they are tied to the *Sternum* before, and to the *Vertebræ* behind. The *Trachea* divides into several Branches as it enters the Lungs; which Branches, and their Subdivisions, are call'd *Bronchi*; *Of the Lungs.*

Bronchi; the Cartilages of the *Bronchi* are perfectly *annular*; the Extremities of these Branches open into the Cavities of an infinite Number of Vesicles disposed like Bunches of Grapes upon them: these make the peculiar Substance of the Lungs. In the Dilatation of the *Thorax*, the Air rushes into the said Vesicles, and distends the Lungs; this we call *Inspiration*: But the Cavity of the Breast being straiten'd, compresses the Lungs, and expels the Air again, which is call'd *Expiration*. These two alternate Actions are the Office of the Lungs, and absolutely necessary to Life.

Inspiration.

Expiration.
Their Office.

Of the Heart.

Its Auricles
and Ventricles.

The Circulation
of the
Blood.

Diastole and
Systole.

Of the
Thymus.

Of the Breasts.

THE HEART is the next, and the noblest Organ of *Animal Life*; its Situation has been said, its Form is well known, its Substance is of muscular Flesh; for the Heart is a Muscle of various Orders of Fibres, by which means it is capable of Contraction and Dilatation. In the Heart are two large Cavities call'd *Ventricles*, the Right and the Left; above each of these is an *Auricle* or little Ear; in the Right *Auricle* opens the *Vena Cava*, and the *Vena Pulmonalis* in the Left. The *Arteria Pulmonalis* arises from the Right Ventricle of the Heart, and the *Aorta* or Great Artery from the Left Ventricle. In the Dilatation of the Right *Auricle* the Blood rushes in from the *Vena Cava*, which, by its Contraction, is thrust into the Right Ventricle, which, by its Contraction, drives it into the *Pulmonary Artery*, by which it is circulated thro' the *Lungs*, and then return'd by the *Pulmonary Vein* into the Left *Auricle*, and from thence into the Left *Ventricle*, which, in its Contraction, forces it into the Trunk of the *Aorta*, which carries it to all Parts of the Body; from whence 'tis return'd by the Veins to the Right *Auricle*. And thus by an alternate Dilatation and Contraction (call'd the *Diastole* and *Systole*) of the *Auricles* and *Ventricles* of the Heart, the *Circulation of Blood* is effected, which is the proper *Function* of the Heart.

THE THYMUS is another *Viscus* of the *Thorax*; it is a conglobate Gland situated just under the *Clavicula*, is large in Infants, but grows less as they grow older. Its Use is supposed to be for a *Diverticulum* to the Chyle in the *Thoracic Duct* of a *Fœtus*.

THE BREASTS are the last Parts observable about the *Thorax*; they are situated on the external Part,

Part, one on each Side. Their Substance is composed of a great Number of Glands of an oval Figure, which lie in a great Quantity of Fat. Their excretory Ducts, as they approach the Nipple, join and unite, till at last they form seven, eight, or more small Pipes call'd *Tubuli Lactiferi*, which communicate by several cross Canals, and all terminate in the Extremity of the Nipple, where they pour out the Milk, separated by the Glands, in *Suction*.

THE *VISCERA*, or Bowels of the third or lowest Cavity, call'd the *Abdomen*, now come to be described. When the common Integuments and the *Peritonæum* are laid open, the first thing that presents itself to View, is

THE *OMENTUM*, or Cawl; this is a delicate and fine double Membrane, interlarded with a great deal of Fat, and, like a Bag, contains and covers the greatest Part of the Intestines. It is connected to the Liver, Spleen, *Duodenum*, *Colon*, and Bottom of the Stomach. Its Use is to contain and cherish the Intestines with gentle Warmth, and thereby promote Digestion in the Stomach, and help the Concoction of the *Chyle* in the Guts; to lubricate and facilitate their peristaltic Motions, and to sustain the Vessels which go from the Spleen to the other *Viscera*.

THE *STOMACH* is situated just under the *Midriff*, is of a long, wide, and roundish Figure. It hath two Orifices; by the Left, call'd *Cardia*, it is join'd to the *Oesophagus*; and by the Right, call'd *Pylorus*, it is united to the first of the Intestines. It is made of four Coats; the external one is common, the second is muscular, being made of strait and circular Fibres; the third is fine, thin, and wholly *nervous*; the fourth, and inmost, is full of Plaits and Wrinkles, in which are a great Number of Glands, which separate a Liquor which besmeares the Cavity of the Stomach, and helps Digestion. The Stomach receives the Aliments by the *Oesophagus*, which by the Action of its muscular Coat, and fermenting Juices, are separated, dissolved, and reduced to a *white liquid Substance*, call'd *Chyle*, which is then protruded thro' the *Pylorus* into the Intestines; and this is call'd *Digestion*, which is the proper Office of the *Stomach*.

Of the Intestines.

THE *INTESTINES*, or Guts, are a long and large Pipe, which reaches from the *Pylorus* to the *Fundament* in various Circumvolutions and Turnings. They are knit all along to the Edge of a Membrane call'd the *Mesentery*. They are compos'd of three Coats, of which the first is common, the second is made of strait and spiral Fibres, and the third and inmost Coat is rugous, or full of Plaits, call'd *Valvulae Conniventes*, which retard the Progress of the *Fæces*. This Tube is divided into three small and three great Guts; the small ones are the *Duodenum*, the *Jejunum*, and the *Ileum*; the great ones are the *Cæcum*, the *Colon*, and the *Rectum*, the Extremities of which make the *Anus* at the *Fundament*. The *Chyle* entring the *Duodenum* hath its fine nutritive Parts absorb'd by the Orifices of the *Lacteal Veins*, and the Remainder is, by the peristaltic Motion of the Guts, gradually convey'd forward to be ejected by the Body as uselefs Excrements or *Fæces*.

Small and great Guts.

Of the Mesentery.

THE *MESENTERY* is that Membrane which hath the Guts connected to its circular Edge to prevent their entangling one with another; it is tied to the three first *Vertebrae* of the Loins; upon it run the *Venæ Lactææ*, or *Lacteal Veins*, which imbibe the *Chyle* from the small Guts; as also the *Vasa Lymphatica*, or *Lymphatic Vessels*. By these two Sorts of Vessels the *Chyle* and the *Lympha* are carried to the several *Vesicular Glands* of the *Mesentery*, from which go *Lacteals* of a larger Size, and carry the *Chyle* to the *Receptaculum Chyli*, which seems to be only a Bag formed by the Union of *Lacteals* and *Lymphatics*: It is situated between the great Artery and *Vertebrae* of the Loins. From thence the *Chyle*, diluted with the *Lympha*, is convey'd in a Tube through the *Thorax* (which therefore is call'd the *Thoracic Duct*) and then up the Neck; whence it is conducted to the Left *Subclavian Vein*, into which it is discharged by one or two Orifices, where it mixes, and is made to circulate with the Mass of Blood, for the Nourishment of the Body.

Venæ Lactææ.
Vasa Lymphatica.

Receptaculum Chyli.

Thoracic Duct.

Of the Pancreas.

THE *PANCREAS*, or Sweet-bread, is a large Gland of the *Conglomerate* Sort; it lies across the *Abdomen*, reaching from the Liver to the Spleen; its glandulous Substance separates a Liquor call'd the *Pancreatic Juice*, which is conveyed by a Duct to the

Its Use.

the *Duodenum*, in order to dilute the *Chyle*, that it may the more easily enter the Mouths of the *Lacteal Vessels*.

THE *LIVER* lies in the Right *Hypochondrium*; *Of the Liver.* it is almost round, and pretty thick, convex on its upper Side, and somewhat concave on the under; its fore Part is divided into two, where the umbilical Vessels enter it. The Substance of the Liver is glandulous, which separates the *Gall* from the Blood brought thither by the *Vena Portæ*, which is then carried to the *Vesica Fellis*, or Gall-Bladder; from *Vesica Fellis.* hence goes a Duct call'd the *Ductus Cysticus*, which joins another from the Liver call'd the *Porus Biliaris*, *Porus Biliaris* in which the *Bile* is found; these two Ducts uniting form one call'd *Ductus communis Choledochus*. By this the *Gall* or *Bile* is carried also to the *Duodenum*, *Bile, its Use.* to be mixed with the *Chyle*, in order to blunt or sheath its Acids, that it may be so far attenuated as to be meetly diluted by the *Pancreatic Juice*.

THE *SPLEEN* is situated in the Left *Hypochondrium*; *Of the Spleen.* between the Ribs and the Stomach it is tied to the *Peritonæum*, *Diaphragm*, and *Omentum*; it is of a Lead Colour, and an oblong Figure. The Substance of the Spleen is composed of an Infinity of Membranes, which form little Cells and Cavities of different Figure and Bigness, always full of Blood. It is supposed to be a *Reservoir* or *Diverticulum* to the arterial Blood in passing to the *Liver* for the Secretion of the *Bile*.

THE *KIDNEYS* are two, one on each Side; *Of the Kidneys.* the Right is under the Liver, the Left under the Spleen; their Figure is well known: The Kidneys are Glands of the *Conglomerate* Kind, consisting of an infinite Number of little Glands, of a roundish Figure, in its outer Substance, which secern the *Urine* *Their Use.* from the Blood brought to them by the Emulgent Arteries. The *Urine* is convey'd by small Tubes, uniting in their Progress, and forming larger Bundles, whose Extremities pierce and discharge it into the *Pelvis* or *Basin*, which is a Cavity form'd by the Dilatation of the *Ureters*, which are long, slender, and membranous Tubes that carry the *Urine* from the Kidneys to the Bladder, one on each Side: They are obliquely inserted near the Neck of the Bladder. *Ureters.*

The Renal Glands. JUST above the Emulgent Vessels are situated two Bodies, one on each Side, call'd *Capsulæ Atrabiles*, or *Glandulæ Renales*, the Renal Glands, wrapt up in some Fat; they are often of different Figure, are biggest in a *Fœtus*, and their Use is not yet known.

Of the Bladder. THE BLADDER is situated in the Duplication of the *Peritonæum*, in the lower Part of the *Abdomen*. It is tied to the Navel by the *Urachus* degenerated into a Ligament. It is composed of three Coats; the first is common, the second muscular, the third is full of Wrinkles, and is both glandulous and nervous. It has a constrictive Muscle around its Neck, call'd *Sphincter Vesicæ*, which prevents the Urine from running out continually. When the Bladder is full, the Urine is, by the muscular Power of the second Coat, expell'd the Body thro' the *Urethra*, into which the Bladder opens.

Of the Parts of Generation in Men. WE are now arrived to the *Parts of Generation*, which we shall give a short Account of in both Sexes; and first of those in Men.

Spermatic Arteries. THE Parts serving to Generation in Men are the following: (1.) The *Spermatic Arteries*, which arise from the *Aorta*, a little below the Emulgents, and carry the Blood to the Testicles for the *seminal Secretion*. (2.) The *Spermatic Veins*; these carry the Blood back again to the *Vena Cava*. In their Progress, a little above the *Testes*, they divide into several Branches, which make various Inosculations, till they come near the *Abdomen*, where they all unite into one Trunk, and from their Shape are call'd *Corpora Pyramidalia*: These Veins and Arteries together are call'd the *Vasa Præparantia*. (3.) The *Testes*, or Testicles, their Substance is *vascular*, or composed of infinite Plexus or Convolutions of the fine Branchery of the Spermatic Vessels; they are two in Number, and are contain'd in a common Integument, like a Purse, call'd the *Scrotum*; and each Testicle hath two proper Coats, the outermost call'd *Tunica Vaginalis* or *Elythroides*; the other is call'd *Albuginea*, because of its white Colour. The *Testes* are suspended in the *Scrotum* by the *Cremaster Muscle*, which draws them up in *Coitu*.

Scrotum. (4.) The *Epididymis*, which is a Body form'd on the upper Part of each Testicle, by the several Windings and Intervolutions of a fine Tube, which receive the

Semen

Semen immediately from the *Testes*. (5.) The same Tube or Canal, continuing and ascending from the Extremities of the *Epididymis*, form the *Vasa Deferentia*: These enter the *Abdomen*, and proceed with the *Semen* to (6.) The *Vesiculæ Seminales*, which are two in Number, one on each Side, on the under Part of the Neck of the Bladder. In these Vesicles the *Semen* is repositied till the time of Coition, when it is again received by the *Vasa Deferentia*, and carried through the Substance of (7.) The *Prostata*, or *Corpus Glandosum*, whose Glands separate a clear mucilaginous Humour, which in *Coitu* is carried into the *Urethra*, at the same Place where the *Semen* is also discharged from the *Vasa Deferentia* at the same time. (8.) The *Penis* or Yard, whose Substance is composed of two spongy Bodies call'd *Corpora Cavernosa*, which arise distinctly from the lower Part of the *Os Pubis*, and terminate at the Extremity of the *Penis* in the *Glans*, which is always kept soft, moist, and very sensible, by a kind of Hood call'd *Præputium* or Foreskin, made by a Reduplication of the Skin of the *Penis*. On the under Side of the *Penis*, or the *Corpora Cavernosa*, there runs a Pipe call'd the *Urethra*, thro' which the Urine is discharged from the Bladder, and the *Semen* injected into the Womb in the Act of Generation.

Vasa Deferentia.

Vesiculæ Seminales.

Prostata.

Penis.

Corpora Cavernosa.

Glans. Præputium.

Urethra.

THE Parts subservient to the same Purpose in Women are, (1.) The *Vagina*, the external Orifice of which is the *Pudendum*, the two *Labia* of which in Adults are covered with Hair. The soft Protuberance above is call'd *Mons Veneris*. Immediately within the *Labia* are, (2.) The *Nymphæ*, one on each Side; they resemble the red Membranes under the Throats of Pullets. In the Angle of the *Vulva*, next the *Pubis*, is the Extremity of (3.) The *Clitoris*, which is in Shape and Parts much like the *Penis* in Men, but much less; it is also erected, and becomes the Seat of Pleasure in Acts of Venery. (4.) The *Hymen*; it is a circular Folding of the inner Membrane of the *Vagina*; which, being set across the Passage, is broke at the first Embrace, and its Fibres contracting in three or four Places, form what are call'd the *Glandulæ Myrtiformes*. (5.) In this Part of the *Pudendum muliebre* opens the Orifice of the *Urethra*. (6.) In the Passage of the

The Parts of Generation in Women. Vagina.

Nymphæ.

Clitoris.

Hymen.

Urethra.

Vagina

Lacunæ.
Womb or
Matrix.

Spermatics.
Ovaria.

Tubæ Fallo-
pianæ.

Morsus Dia-
boli.

Of Angiology.

Neurology.

A Nerve,
what.

Their Origin.

The Nerves of
the Brain.
Olfactory
Nerves.

Vagina opens the Orifices of numerous excretory Ducts from Glands within the inner Membrane ; they are call'd *Lacunæ* ; they pour forth a viscous Liquor for increasing *Titillation*. (7.) The *Womb* or *Matrix* ; it is joined to the *Vagina*, which communicates with it by a small Orifice. The Figure of the Womb is like that of a Pear ; it is situated between the Bladder and Strait Gut : Its Substance is composed of fleshy Fibres of a muscular Nature, which render it capable of great Dilatation and Contraction : It is tied by two sorts of Ligaments call'd *Ligamenta Lata*, or broad ones ; and *Ligamenta Rotunda*, or round ones ; two of each. (8.) The *Spermatic Arteries* and *Veins* spent on the *Ovaria*, *Womb*, and *Vagina*. (9.) The *Ovaria* or Testicles, which are near half as big as those in Men, but are flattish and smooth before Conception. (10.) The *Tubæ Fallopianæ* are situated one on each Side the Womb ; they arise from its Bottom by a narrow Beginning, and dilate towards the Extremities in Form of a Trumpet, where they contract into a small Orifice ; from whose Circumference they dilate into a broad jagged Membrane call'd *Morsus Diaboli*. These are the Parts of Generation in Women.

WE are now come to *ANGIOLOGY*, the third great Part of *Sarcology* ; and this comprehends three other Subdivisions, viz. (1.) *Neurology*, or the Doctrine of the *Nerves*. (2.) *Arteriology*, or the *Arteries* ; and (3.) *Phlebotology*, which treats of the *Veins*. A little of each of these in brief must suffice. And first of

NEUROLOGY, which describes the Nature, Number, Uses, &c. of the *Nerves* of the Human Body. A *Nerve* is a long and small Bundle of very fine Pipes, or hollow Fibres, wrapt up in the *Dura* and *Pia Mater* ; which last not only covers them all in common, but every Fibre in particular.

THE *Origin* or Beginning of all the Nerves is from the *Medullary Substance* of the Brain and Spinal Marrow : They generally arise by Pairs, viz. Ten Pair which come out of the Scull, and thirty from between the *Vertebræ* of the Back Bone.

THE ten Pair of Nerves which arise from the Brain, and come out of the Scull, are as follows : (1.) The *Olfactory Nerves* ; they arise from the fore Part of the Basis of the Brain, pass thro' the Holes of the

Os

Os Cribriforme, and are spread upon the *Os Spongiosum* in the Noftrils. (2.) The *Optic Nerves*; they proceed from the *Corpora Striata* and *Thalami Nerv. Opt.* thro' the foremost Holes of the *Os Sphænoïdes* into the Orbit of the Eye, where they spread upon the glassy Humour of the Eye. (3.) The *Motores Oculorum*; they arise from the *Medulla Oblongata*, and are spent chiefly on the Coats and Muscles of the Eye. (4.) The *Pathetics*, which pass through the *Foramina Lacerata*, are wholly spent on the Muscle of the Eye call'd the *Obliquus Major*. (5.) The *Fifth Pair* are the largest of the Brain, and each divides into three other Branches, which are spent on the Muscles and Parts of the *Face, Mouth, &c.* (6.) The *Sixth Pair* is a small one, wholly spent on the *Abducent Muscle* of the Eye. (7.) The *Auditory Nerves*; these pass the Holes of the *Os Petrosum*, and are partly spent on the internal Cavity of the Ear, and partly on the external Ear, and other Parts of the Mouth and Face. (8.) The *Par Vagus*; it goes down the Neck, together with the *Accessory Nerve*, and dividing into various Branches, are spent on the *Viscera* and other Parts of the *Thorax, &c.* (9.) The *Gustatory Nerve*; it passes out of the Occipital Hole, and is distributed in the Body of the Tongue. (10.) The *Tenth Pair* is spent principally on the oblique Muscles of the Head.

Optic Nerves.

Motores Oculorum.

Pathetics.

Fifth Pair.

Sixth Pair.

Auditory Nerves.

Par Vagus.

Gustatory Nerve.

Tenth Pair.

OF the *Thirty Pair of Nerves* from the *Medulla Spinalis*, (1.) *Seven Pair* come out betwixt the *Vertebræ* of the Neck, and are chiefly spent in numerous Branches on the Muscles, &c. of the Head, Neck, and Arms. (2.) *Twelve Pair* from the *Vertebræ* of the Back, of which the first goes to the Arm, the last to the Muscles of the *Abdomen*; and the rest to the *Intercostal, &c. Muscles* of the Ribs and *Vertebræ*. (3.) *Five Pair* from the *Vertebræ* of the Loins; these furnish the Muscles of the lower Belly, the *Inguen*, the *Yard, &c.* with a Number of Branches; but the Trunk of the third and fourth join and make the *anterior Nerve* of the Thigh; the last also enters the Thigh. (4.) *Six Pair* come out of the *Vertebræ* of the *Os Sacrum* on the Foreside. The first four Pair give some Twigs to the Parts in the Basin; but their great Branches, with the last, and a Branch of the fourth of the Loins, make the *Sciatic Nerve*, which

The Nerves of the Medulla Spinalis.

goes down the hinder Part of the Thigh to the Leg and Foot, and is the largest Nerve in the Body. The fifth and sixth are small, and dispersed on the Bladder, Sphincter, and Privy Parts.

The Use of the Nerves.

THE Use of the Nerves is to convey the *Animal Spirits*, separated from the Blood in the Brain and Spinal Marrow, to all the Parts of the Body, as being the supposed Organs which convey to the Mind the Impressions made on any Part, and thus effect what we call *Sensation*.

Arteriology. Arteries, what.

ARTERIOLOGY exhibits a View of the Doctrine of the *Arteries*, which are those Tubes or Canals that convey the Blood from the Heart to all Parts of the Body. Each Artery is composed of three Coats, of which the middle one doth consist of spiral Fibres, which render it very *elastic* and *contractile*, and is the Cause of Pulsation in the *Arteries*.

The Aorta. Coronariæ.

THE great *Arterial Trunk*, whence all the larger Branches proceed, arises from the Left Ventricle of the Heart, and is call'd the *Aorta*: It sends out two small Branches to the Heart itself, call'd *Coronariæ*; after this it ascends a little, and then turning downwards, forms the Descending Trunk of the *Aorta*. From the upper Side of the Crook it sends out three Branches; two on the Left Side, *viz.* the *Subclavian*, and one *Carotide*; and one on the Right Side, *viz.* the Right *Subclavian*, from which arises the Right *Carotide Artery*.

Subclavians.

THE *Subclavian Arteries* on each Side send out the *Mediastinal* and *Mammary* Branches to the Breasts, the *Cervical* to the Neck and Head; and then the *Subclavian* passing the *Musculus Scalenus*, goes to the Arm, and is call'd the *Axillary Artery*. The *Carotide Arteries* ascending the Neck, furnish all the Parts of the Head and Brain with proper Branches.

Carotides.

Descending Trunk of the Aorta, and its Branches.

THE *Descending Trunk* of the *Aorta* sends out first the *Bronchial* to the Lungs, then the *Intercostal Arteries* in the *Thorax*; to the *Diaphragm* it gives the *Phrenic* Branch; and entering the *Abdomen* it sends out the *Cæliac*, which divides into two Branches; one to the Right, which gives the *Gastric* to the Stomach, the *Cystic* to the Gall-Bladder, the *Epiplois* to the *Omentum*, &c. the other to the Left, which sends

the

the *Splenic* to the Spleen, &c. Then the *Aorta* sends out the *Mesenteric* to the Mesentery, the *Adiposæ* to the Renal Glands, the *Emulgents* to the Kidneys, the *Spermaties* to the Testicles, the *Lumbares* to the Muscles of the Loins. Here it divides into two large Trunks call'd the *Iliac Arteries*; each of which is again divided into the External and Internal *Iliac*. The Internal sends Branches to the Parts in the *Pelvis*, the *Pudenda*, and Muscles of the *Abdomen*, *Thighs*, &c. The External *Iliac*, leaving the Cavity of the *Abdomen*, sends out the *Epigastric* to the *Musculus Rectus*, and the *Pudenda* to the Privities; then going down the Thigh and Leg, it is call'd the *Crural Artery*, which spends itself in various Branches on the Muscles thereof. So much for the *Arteries*; next

PHLEBOTOMY teaches the Doctrine of *Phlebotomy*.
the *Veins*, which are only a Continuation of the ex- *Veins, what.*
treme *Capillary Arteries*, which is what the Anato-
mists call the *Anastomosis* of the Veins and Arteries. *Anastomosis.*
They return the Blood to the Heart in numberless
Branches, which, uniting as they approach it, form
at last three large Trunks of Veins, viz. the *Cava Vena Cava*.
descendens, which brings the Blood back from all the
Parts above the Heart; the *Cava ascendens*, which
returns it from all the Parts below the Heart; and
the *Vena Portæ*, which carries the Blood to the Liver *Vena Portæ.*
for the Secretion of the Bile.


THE chief Branches of the Veins correspond to those of the Arteries, as coming from the same Parts to which they go, and have therefore the same Names in general; as the *Subclavians*, the *Carotides* or *Jugulars*, the *Cervicals*, *Mammaries*, *Axillaries*, *Emulgents*, *Spermaties*, *Iliacs*, &c. with some few having proper Names.

The Coats of the *Veins* are of course the same with *Veins have*
those of the Arteries; only the Muscular Coat is as *no Pulsation,*
thin in all the Veins as it is in the Capillary Arteries, *and why.*
and consequently there is not that *Elasticity* and con-
tractive Power in these as in them; nor is there any
Pulsation, because the Blood enters the *Veins* in a con-
tinued even Stream, and moves from a narrow Channel
into a wider, and so does not press against the Sides of
the Veins as against those of the Arteries.

THE *Veins* perpendicular to the Horizon, as also other Ducts, as the *Lymphatics*, the *Thoracic Duct*, &c. have thin Membranes or *Valves* placed in their Cavities, which open with the Course of the Blood or Fluid, and give it a free Passage; but are closed by the reflunt Blood, and so hinder its Regress. *Such is the admirable Providence of Nature in all her Handy-works!*



Of PHARMACY; or the Art of Compounding MEDICINES.

 *HARMACY* is the Art of making *Pharmacy* defined. Medicines, and it hath been usually distinguished into two Kinds, *Chymical* and *Galenical*. *Chymical Pharmacy* is the Art *Chymical*. of making and procuring Medicines by the Operations of *Chymistry*, or the Action of Fire on Natural Bodies, resolving and reducing them to their simple constituent Parts, as *Spirits, Oils, Salts, &c.* But the *Galenical Pharmacy* is that which prepares Medicines, after the Method of *Galen*, in a more gross Manner from the whole Substance of Vegetables; and not only so, but also compounding the various Parts of the same Plant, and likewise of divers Plants together, to answer the Intentions of *Physic*. *Galenical*.

THE Business of making Medicines of the *Galenic Pharmacy* Kind is call'd *Pharmacopœia*, and he who actually performs it is call'd *Pharmacopœius*, or, vulgarly, an *Apothecary*: But he is also call'd *Pharmacopola*, from *Pharmacopola* his selling or vending of Medicines. Moreover, the Weighing and Measuring out proper Quantities of Ingredients for a compound Medicine is call'd *Dispensation*; and a Book containing Rules directing such Quantities is call'd a *Dispensatory*; as that of the *College, Quincy*, and others. Lastly, those *Simples* which are used in the *Shops*, and the compound Medicines made of them, are call'd *Officinal Simples* and *Compositions*. *Dispensatory*.

THE *WEIGHTS* which the Apothecary useth *Of the Weights* in making and compounding his Medicines, with the *used by the* Characters by which they are represented in *Apothecaries*, Prescriptions and Books, are as follows: *lb*, a Pound;

℥, an Ounce; ʒ, a Dram or Drachm; ℥, a Scruple; gr. a Grain; ℥s, Half of a thing; M, an Handful; P, a Pugil, one eighth Part of an Handful; P. Æ. equal Quantities; q. s. a sufficient Quantity; S. A. according to Art; Cong. a Gallon; Cochl. a Spoonful. And in regard of Numbering, instead of Figures they use the Numerical Letters; as, i, ii, iii, iv, v, &c. for 1, 2, 3, 4, 5. Thus ʒi, ʒii, ʒiii, &c. signifies 1, 2, 3, Ounces: And ℥ss, or ʒss, is half a Pound, or half an Ounce.

Abbreviatures

AGAIN, in Prescriptions to the Shop, ℞ signifies Recipe, or take; ā, of each; m. Mix; f. m. make a Mixture; f. make; h. m. Medicinal Hours; h. s. the Hour of Sleep, or going to Bed.

A Table of Apothecaries Weights is as follows.

Twenty Grains, gr. xx.	} make	℥i. One Scruple.
Three Scruples, ℥iii.		ʒi. One Drachm.
Eight Drachms, ʒviii.		℥i. One Ounce.
Twelve Ounces, ℥xii.		℔i. One Pound.

Also one Cochl. or Spoonful is about ʒss, or half an Ounce; and one Cong. or Gallon is ℔viii, or eight Pounds.

Officinal Simples.

OFFICINAL SIMPLES are all the Parts or Subjects of the three Kingdoms of Vegetables, Animals, and Minerals, that are used in the Shops for making compound Medicines. Of these, Vegetables make the Substance of the Galenical Pharmacy which we here treat of; Animals and Minerals being referr'd to the Chymical. Vegetable Simples are distributed, by Dispensatory Writers, into Herbs, Flowers, Barks, Roots, and Seeds; to which may be added the several Gums or inspissated Juices of some Plants.

Rules to be observed concerning Herbs,

CONCERNING the Gathering and Preservation of these Simples, it is requisite to observe the following Rules or Maxims. As concerning Herbs: (1.) They are of the greatest Virtue when beginning to flower, and therefore should be then gather'd. (2.) They should be gather'd when they are perfectly free from Rain or Dew, or they will turn black in drying. (3.) They ought to be dried in the Shade, for too great Heat exhales their Moisture, and diminishes their beautiful Verdure, &c. (4.) The fresher they are brought into Use the better; though some may be kept much longer than others. (5.) So long as the
fresh

fresh Colour they are dry'd with continues, they may be esteem'd good in Medicine, but no longer. (6.) They are much better for *Decoction* and *Distillation* when *dried* than *green*; because their *Saline* and *Volatile Parts* will not well mix with a *Menstruum*, till their native *Pblegm* or *Water* be evaporated.

CONCERNING *Flowers*, observe (1.) That they also be gather'd dry. (2.) They should be gather'd when they are full blown, unless such as are order'd to be used in the Bud; as *Red Roses* for *Conserves*, &c. (3.) They are better *dried* in the *Sun* than in the *Shade*; because the *quicker* they *dry*, the better they preserve their *Scent* and *Colour*. (4.) They must be carefully kept so as not to grow *musty*, and the *closer* the *better*. (5.) If they seem to *give*, they must be exposed again to the warm *Sun*; and two or three such *Airings* will prevent that Fault for the future. (6.) They lose in a great Measure their *Vir-tues* with their *Scent* and *Colour*, and therefore should be kept no longer than these endure.

and Flowers,

Seeds should be gather'd dry, and when ready to shed. *Fruits* are best when *full ripe*; unless such whose *Efficacy* depends upon the *Austerity* of their *Juices*; and such *not quite ripe* are the better.

and Seeds.

Roots are best taken up in the Beginning of the *Spring*, for Reasons obvious to all.

Roots.

Barks are the better for being fresh dried, tho' many will keep a long time without perceptible Decay; and the same holds true of *Woods* of all kinds.

Barks.

Gums, and *inspissated Juices*, are the better the freer they are from *Dross* and *Mixture*; but are seldom fit for Use.

Gums, &c.

OF these *Simples* are made and compounded the various *Officinal Medicines*, or those that stand ready prepar'd for Use in the *Apothecary's Shop*. Of these there are *several Kinds*, under *various Forms*, and made in *different Manners*. As (1.) *Waters*. (2.) *Spirits*. (3.) *Oils*. (4.) *Decoctions*. (5.) *Infusions*. (6.) *Syrups*. (7.) *Honeys*. (8.) *Juices*. (9.) *Wines*. (10.) *Tinctures*. (11.) *Elixirs*. (12.) *Conserves*. (13.) *Sugars*. (14.) *Confections*. (15.) *Electuaries*. (16.) *Troches*. (17.) *Pills*. (18.) *Powders*, or *Species*. (19.) *Balsams*. (20.) *Ointments* or *Unguents*. (21.) *Cerates*. (22.) *Plaisters*: With some other *Forms*;

Of the vari-
ous Medicines
in Pharmacy.

besides those of *Extemporaneous Prescription*; all which I shall treat of in Order, shewing their *Nature*, and the *Manner of making them*.

Of Official Waters.

Simple Water, what.

THE OFFICIAL WATERS are of two Sorts, *Simple* or *Small*, and *Compound* or *Strong Waters*. A *Simple Water* is that which is drawn from any particular Sort of Plant by itself by a *Cold Still*. It is design'd to draw out the *Virtues* of any *Herb, Flower, Seed, Root, &c.* which may be more conveniently given in that Form than any other. They answer but very slight Purposes in Medicine, being able to affect no Parts but the *Nerves* and *Animal Spirits*: And consequently none are of Value but those which are drawn from the *Aromatic Class* of *Vegetables*, or which yield a notable *Scent* or *Taste*; and even these Waters are seldom used but as *Vehicles* to Things of greater *Virtue*.

How made.

SIMPLE WATERS are thus made:

Take a proper Quantity of the proposed Vegetable, fresh gather'd, and whole, and commit it pure and without Mixture to the Cold Still, where let it be kept for a long time in a mild and gentle Heat, not exceeding that of the Summer's Sun, by means of a soft well-regulated Fire; which forcing off the Vapour, or most volatile Part of the Plant, it is condensed by the large Pewter Head, and trickles down the Sides thereof into a proper Vessel placed at the End of the Rostrum to receive it.

Compound

Water, what, and how made.

COMPOUND or STRONG WATERS are such as are drawn from a Composition or Mixture of Vegetable Substances infused in Spirits, and drawn off with an Alembic. I shall give an Example in making the compound *Bryony Water*.

Take Juice of *Bryony Roots* ℞vi. *Leaves of Rue*, *Mugwort*, ā ℞ii. *Savin* m. iii. *Feverfew*, *Catamint*, *Pennyroyal*, ā m. ii. *Basil*, *Dittany of Crete*, ā m. iiss. *Orange-Peels* ℞iv. *Myrrh* ℞ii. *Caster* ℞i. Infuse all in Spirit of Wine ℞viii. and after proper Maceration, raise a moderate and regular Fire to draw it off.

Distilled Spirits.

DISTILL'D SPIRITS differ little in the Manner of making from the Compound Waters, and indeed are nearly allied in their Natures also; as will appear from the following Example of the Spirit of *Caster*.

Take

Take the best Ruffia Castor ℥iv. Flowers of Lavender ℥i. Sage, Rosemary, ā ℥ss. Cinnamon zvi. Mace and Cloves ā ℥ii. Spirit of Wine ℔vi. Digest and draw off the Spirit in a Retort with a Sand-Heat.

OF OILS there are several Sorts, as may be seen Of Oils.
in the Chapter of *Chymistry*. I shall only here take notice, that the *Official Pharmacy* hath to do only with Simple and compound Oils, either by *Expression*, or by *Decoction* and *Infusion*. Simple Oils by *Expression* Simple Oils. are obtain'd from the most oily Parts of *Vegetables*, which are *dried*, to the intent that as much of their *Acid* and *Water* may fly off as possibly can, and then the Remainder is well bruised and put to a strong *Press*, that being work'd forces out the *Oil*. Thus the *Oil* of *Sweet Almonds* is express'd from the *Kernels*; and thus *Oils* are to be made from the *Kernels* of most *Fruit*. *Oils* by *Infusion* are made by taking a Quantity of the proper Parts of the proposed *Vegetable* and bruising the same; it is set to macerate in a Quantity of some sort of *Oil* for the Space of a *Week*, then it is simmer'd in a *Bath-Heat*, and the *Oil* press'd out; after which the *Vegetable* is put into it afresh, and managed in the same Manner as before; and the Operation repeated a third time. The Composition is to stand about 40 Days, and then the *Oil* is set by for Use, without pressing out the Plant.

IN making *Compound Oils*, there are taken several Compound Oils. Sorts of Herbs, &c. of a like Quality, which are to be macerated together in *Wine* and *Oil* for some Days, and then boil'd over a gentle Fire, till the *Wine* is evaporated, and then the *Oil* is strain'd off, and kept for Use. For Example, take the *Compound Oil* of *Costus*.

Take of the Bitter Costus Roots ℥ii. of Cassia Wood ℥i. Tops of Marjorum ℥viii. grossly bruise them together, and macerate them for two Days in ℥xii. of aromatic White-Wine, and then with ℔ii. of Olive Oil wash'd in White-Wine, let them be boil'd to the Consumption of the Wine S. A. then let the Oil be strain'd off for Use.

INFUSION is that Part of Pharmacy whereby Infusion. the Virtues of Plants, Roots, Flowers, &c. are drawn out by letting them steep only in some convenient *Menstruum*;

Menstruum; and this is concern'd in Bodies of a laxer Texture than those which require the next Operation of *Decoction*, and whose Parts are so *light* as not to admit of a greater Motion without Danger of flying away in Vapour. Take for an Example the *Infusion of Sena*.

Take of *Alexandrian Sena* ℥iſs. of the *Leſſer Cardamom Seeds* ℥ii. Salt of *Tartar* ℥iii. pour upon them ℔i. of boiling *Water*, and ſtrain out, when cold, for Uſe.

Decoction.

DECOCTION is that Proceſs by which the Virtues of *Vegetables* are drawn out in *Boiling* them over a gentle Fire in *Water* or ſome proper *Menstruum*; and thus the *Decoction* or *Apozem* is more fully impregnated and ſaturated with thoſe Parts of the Subject that are more readily ſoluble in boiling *Water*. The cloſer, denſer, and heavier any Subject is, and the more *Oil* or *Reſin* it contains, the leſs it is fit for *Decoction*; and therefore ſuch require to be kept a good while in a State of *Digeſtion*, to prepare them for this Operation; wherein alſo they muſt be the longer detain'd before they will give out their *Oil*. For Example, take the Form of the *Common Decoction for Clyſters*.

Take of the *Leaves of Mallows*, *Violets*, *Pellitory of the Wall*, *Beets* and *Mercury*, ā. m. i. of *Camomile Flowers* P. ii. of *Sweet Fennel Seed* ℥ſs. of *Linſeed* ℥ii. and boil in a ſufficient Quantity of *Water* to yield a *Pint* when ſtrain'd.

Of Syrups.

SYRUPS are Forms of Medicines well known, being the *Juices*, *Decoctions*, &c. of *Herbs* and *Drugs* boil'd up with *Sugar* to a proper Conſiſtence; and therefore nothing ſhould be brought into this Form but what is conveniently drawn out by *Decoction*, as an *aqueous Menstruum*, or the *expres'd Juices* of *Plants*, *Fruits*, &c. for any *volatile* or *ſpirituſous Subſtances* will either be loſt in making, or not long continue in the Compoſition. The more, likewise, any thing is diſpoſed to *Fermentation*, the leſs it is fit for this Form; and therefore the *Juices* of *Fruit* ſoonest decay in *Syrups*. Such *Ingredients* therefore, whoſe Virtues conſiſt in their moſt *ſolid*, *permanent*, *ſaline*, and *terreſtrial Parts*, and ſo may be drawn out by an *Aqueous Medium*, are the only Subjects of this Claſs or Form of Medicines. And of ſo ſmall Conſequence is any
Syrup,

Syrup, that their chiefest Use and Efficacy is that of *sweetning Juleps*; and even for that Intention plain *Sugar* has got the Preference in the present more honest Practice. Here follows an Example of making the *Syrup of Citron-Peels*.

How made.

Take the outer yellow *Citron-Peels* full ripe and fresh
 ℥v. *Kermes Berries*, or the imported Juice thereof
 of ℥ii. *Spring Water* ℔iii. steep them together all
 Night in a Bath-Heat, and to the strain'd Liquor
 put ℔iiss. of fine *Sugar*, and with a moderate Heat
 boil up to the Consistence of a *Syrup*.

After this Manner are prepar'd *Syrups* from the *Peels*
 of *Oranges*, *Lemons*, &c.

*HONEY*s are made either by mixing the *Flowers* Of *Honeys*.
 of a Plant with *Honey* clarified, or else by boiling the
 Juice of the Plant and *Honey* together to a due Con-
 sistence. There is a Form call'd a *Rob* or *Sapa*, which Rob or *Sapa*.
 is when a *Decoction* of the Juices of Plants and *Sugar*
 is evaporated till one half is consumed: But if the
 said *Decoction* be exhal'd away to a third Part, the
 Remainder is call'd *Defurtum*. When it is evapora- Defurtum.
 ted to that Consistence that a Drop let fall on a cold
 Marble will there congeal so as to tremble when it is
 touch'd, or shook, it is call'd a *Jelly*; though this Jelly.
 Word be sometimes applied to the fresh Juices of
Fruits and *Plants*, and to some *Broths* of animal Sub-
stances. Lastly, when a *Decoction* is so far exhal'd
 away, that it acquires the Consistence of stiff *Honey*,
 or will not stick to the Fingers when cold, 'tis call'd
 an *Extract*; and this is of two Sorts, viz. the Aqueous Extract.
 and the *Resinous*; the first being made with *Water*,
 the other with *Spirits of Wine*; but both of them are
 aine, fat, bitter Substances, and always appear of a
 very black Colour.

THE *INSPISSATED JUICES* of Plants Inspissated
 are made by bruising the Plants when young and fresh, Juices.
 and expressing their Juices, which are to be boiled and
 exhaled to a due Consistence.

MEDICATED WINES are made by only Medicated
 infusing or digesting proper Subjects in common Wine, Wines.
 as may appear by this Example of the *Steel Wine*.

Take Filings of *Steel* ℥i. *Saffron in Powder* ℥ii.
Mountain Wine ℔i. let them stand in Infusion three
 Days, frequently shaking them, and then filter and
 keep for Use.

TING-

Tinctures.

TINCTURES, in like manner, are made by Digestion of Ingredients in strong Liquors or Spirits ; which being saturated with the Virtues thereof are strain'd or drawn off by a gentle Heat. As for Instance, in the *Tincture of Rhubarb* :

Take of Rhubarb ʒiſs. of the lesser Cardamom Seeds and Saffron ā ʒii. of Liquorise Roots ʒſs. of French Brandy ℔i. digest them eight or ten Days, and decant off the Tincture for Use.

Elixirs.

AN ELIXIR is a Form of Medicine made by strong Infusion, where the Ingredients are almost dissolved in the *Menstruum*, and give it a thicker Consistence than a Tincture. This Form shall be exemplified in the *Elixir of Life*, as follows.

Take Nutmegs, Mace, Cinnamon ā ʒi. Cloves ʒſs. the outer Rinds of Oranges and Citrons ā ʒiii. Saffron ʒii. digest all together in a Sand-Heat in ℔iii. of rectified Spirits of Wine for some Days ; and pour off the clear Part for Use.

Conservees.

CONSERVES are a well-known Composition in the Shops ; it is a Form contriv'd to keep and preserve the *Herbs, Flowers, Peels, Roots, or Fruits, of Vegetable Simples* as near as possible to what they were when fresh gather'd ; and this is done by beating them up in a Marble Mortar with triple the Quantity of Loaf Sugar, till the Particles of the *Simples* are so blended with the Sugar, that they can't be distinctly discerned. But for those *Simples* which are less moist or succulent, a double Quantity of Sugar will do ; and for some *Fruit*, and their *Pulps*, yet less will serve. These, like *Syrups*, answer no more important Intentions than mixing with, and rendering palatable other things of real Efficacy.

Sugars.

SUGARS, rather a Part of the Confectioner's than Apothecary's Art, are either Simple or Compound. Simple Lozenge Sugar is made by pouring Sugar which has been sufficiently boil'd with half its Quantity of Damask Rose Water, on a Marble ; and there, when cold, cut into Tablets or Lozenges. Compound Lozenge Sugar is made by mixing a Composition of Ingredients in Species with the Sugar, which is brought to a proper Consistence, and made into Tablets, as before.

Confections.

A CONFECTIO is a sort of Medicine compounded with dry Ingredients of many Kinds, which are proper to be given in Substance, being mix'd and made

made into a Consistence that will not presently run, with *Honey* or *Syrup*. Thus for Example the *Confection of Kermes* is made.

Take the best scented Rose Water ℥ii. the Juice of Kermes Berries ℥iii. of the whitest Sugar ℔i. boil them almost to the Consistence of Honey; and then stir in the Powders of the best Cinnamon and Aloes Wood, ā ʒvi. and make them into a Confection, S. A.

AN *ELECTUARY* is little different from a *Electuaries*. *Confection*, being made of *Conserves*, *Powders*, *Species*, &c. into the Consistence of *Honey*, or the *Pap* of a roasted *Apple*, to be made into *Boles* upon occasion. When this Form of Medicine is *too thin*, it is apt to ferment; and when *too thick*, it is apt to candy; and both these Inconveniencies alter and impair the Virtues of the Ingredients; and therefore 'tis a little to be wonder'd at that *Confections* or *Electuaries* should be so much in Use, while other Forms infinitely superior in all respects lie neglected, or unthought of, says a learned and judicious Author. Take an Example of the Form in the Composition of the *Pectoral Electuary*, as follows.

Take the Juice of Liquorise and of Sweet Almonds ā ʒss. of Pine Leaves ʒi. of Hyssop, Maiden Hair, Florentine Orrice, Nettle Seeds, and round Birth-Wort, ā ʒiss. Seeds of Cresses, and Elicampane-Root, ā ʒss. of Honey ʒxiv. and make them into an Electuary.

TROCHES or *LOZENGES* are a Form of *Troches or Lozenges*. Medicine not so much in Use in the modern as in the antient Practice. It seems design'd to preserve in readiness for present Use, Substances which stood in need of some Preparation, in powdering, &c. and which by lying in dry Powder would likewise be subject to decay sooner than in this Form. The Composition consists in various Ingredients reduced to Powder, and worked up into a *Paste* with Mucilages or other viscous Substances, which is roll'd out thin like a *Pancake*, and then with a proper Instrument it is cut out into *Troches* or *Lozenges*; which are to be held and dissolv'd in the Mouth to answer the Intentions of *Balsamics* and *Pectorals*. The Method of making the *White Troches of Rhases* is thus exemplified.

Take

Take of Cerufs washed with Rose-Water 3x. of Sarcocolla 3iii. of Starch 3ii. of Gum-Arabic and Tragacanth ā 3i. of Camphire 3fs. and make them into a Paste with Rose-Water, to be cut into Troches.

Pills.

PILLS are a Composition of divers Ingredients reduc'd to Powder, and made into a hard *Paste* or *Mass*, with a Quantity of Syrup; and is of that *special Consistence*, that when, on any Occasion, a small Part of it be taken and work'd up into a small round *Ball* or *Pill*, it shall be able to retain that Form and Consistence without Alteration. This Composition in the Shops contains now but little besides what is of a *Cathartic Intention*; *Alteratives* requiring more room than here is allow'd for a Dose, which is generally five or six Pills, whereas they would require fifteen or twenty for a Dose. Nothing should enter this Form that is *solvable* in Air, as some Salts; or apt to *ferment*, as *Volatile Salts*, &c. You have a proper Example of making this kind of Medicine in the *Greater Pill Cochiae*, as below.

Take of Hiera-Picra 3x. of the Troches of Albandal 3iiifs. of Diagrydium 3iifs. of the most resinous Turpeth 3v. and make them into a Consistence fit for Pills, with a sufficient Quantity of Syrup of Buckthorn, S. A.

Powders.

POWDERS or (in some Cases call'd) *Species*, are well enough known without Description. 'Tis true that *Powders* and *Species* did originally signify different Things; for *Powders* were a Composition of divers Ingredients reduced to that Form; but *Species* was a Word appropriated to those *simple Ingredients* out of which others more compounded were made; and even now Custom has, without any just Propriety, affix'd it to some *Aromatic* and *Cathartic Powders*, which are Compositions of various Things; as *Species Diambrae*, &c. *Drugs* and *Simples* are reduced to Powder by a twofold Operation, viz. *Pulverization*, which is a *beating* and *pounding* of dry Ingredients together in a Mortar, till they are entirely reduced to a *Dust* or fine Powder. And Secondly, *Levigation*, which is a grinding, hard, ponderous, brittle Substances, as *Coral*, *Tutty*, *precious Stones*, *Shells*, &c. upon a *Marble Stone* with a *Muller*, till they are thereby reduc'd to a *light subtil Powder*, when dry. But the

Pulverization

Levigation.

the grinding Instruments had need be very hard, or else they will so far wear away as to make no considerable Part of the Medicine themselves. Into this Form many Materials are reduc'd which are intended to be given in Substance ; and therefore they should be clean, dry, well pick'd, and in the greatest Perfection in all respects.

BALSAMS are either *Native* or *Fæctitious* ; the *Native Balsam* is an Humour or Juice exuding from some Sort of *Foreign Trees*, as the *Opobalsamum* in *Africa*, and others of *Tolu*, *Peru*, &c. *Fæctitious Balsams* are those Compositions in the Shops which are made of the *native* or *simple Balsams*, together with several other Things of a *cognate Nature* ; and sometimes it is applied to Liquors drawn from *Gums* and *resinous Substances* by the Help of a *vinous Spirit* : But by *Balsams* are most commonly understood those *Officinal Forms* of Medicines as are of a thick, odoriferous, oily and penetrating Substance, and of a Consistence thicker than *Oil*, and thinner than that of an *Ointment*. I shall instance in making the *Apoplectic Balsam*, which is thus :

Take the distill'd Oil of Cinnamon, Cloves, Lavender, Lemons, Marjoram, Mint, Rue, Rosemary, Sage, Rhodium, and Wormwood, ā gut. xii. Amber gut. vi. Bitumen Judaicum zii. Oil of Nutmegs by Expression zi. Balsam of Peru q. s. to make all together into a smooth Balsam.

OINTMENTS or *UNGUENTS* are a Form and Composition of Medicine well known : Its Use is wholly in external Applications ; and the manner of making it is by boiling up divers Drugs or Simples with Wax, Oil, Lard, Butter, or some such *unctuous* and *cohesive Substances*, to a proper Consistence, which is that that is capable of being easily spread, bath'd, or rubb'd on a Part without running off in a liquid Form ; or it is the next Degree of Consistence above a *Balsam*, or the densest Liquid. The Manner of composing a Medicine in this Form, I shall exemplify in the Prescription for an excellent *Ophthalmic Ointment*.

Take of Tutty and Calamine ā zvi. of calcin'd Lead and Camphire ā zii. of Myrrh, Sarcocolla, White Vitriol, and Aloes, ā zi. pulverize the whole, and then take of fresh Butter zvi. White Wax zii.

and melt these together; then by degrees shake in the forementioned Powder, and stir all together till the whole is cold and become an Ointment.

Cerates.

A *CERATE* is a Consistence in the next Degree denser than an *Unguent*, and thinner than a *Plaster*: It is thus denominated from the principal Ingredient in the Composition, *viz.* Wax, which in Latin is call'd *Cera*; for Wax, Oil, and some other softer Substances, dissolved or mixed together, make a *Cerate*, as appears from the Composition of the *White Cerate* of the Shops, which is this:

Take of the whitest Wax ℥iv. of Oil of Sweet-Almonds ℥v. of the finest Sperma Ceti ℥i. of Ceruss wash'd in Rose Water ℥iss. of Camphire ℥ss. make them into a *Cerate*.

Plaisters.

A *PLAISTER* is a Composition of Oils, Waxes, Resins, Powders, &c. in such Consistence as will keep its Form without running or sticking to any thing when cold, but yet is moist enough to be melted and spread, so as to adhere when warm, and not be brittle enough to crack or break off what it is spread upon. But this is a Form so well known, that any Description is superfluous, and therefore I shall only give an Example of its Composition in the *Ammoniac Plaister*.

Take of strain'd Gum Ammoniacum ℥vi. of Yellow Wax and Resin $\text{ā } \text{℥v.}$ of the simple Melilot Plaister, Ointment of Marshmallows, of the Oil of Bays, and Orrice, and Venice Turpentine, $\text{ā } \text{℥iss.}$ of Goose Fat ℥i. of Sal Ammoniac, of Bryony Root, and the Root of Orrice, $\text{ā } \text{℥ss.}$ of Galbanum and Bdellium $\text{ā } \text{℥ii.}$ Let them boil together till it becomes of a due Consistence for a Plaister.

To the foregoing may be added the following anomalous Forms, *viz.*

*Potential
Cautery.*

THE *POTENTIAL CAUTERY*; this is made of a strong Lixivium of Pot-Ashes and Quick-Lime boild to a Driness: It must be kept close stop'd in a Bottle, else it will imbibe the Air, and lose its caustic Quality. Its Use is declared in the *Pharmaceutic Part of Surgery*.

Elaterium.

ELATERIUM; it is the *Fæcula*, i. e. the Settlings of the Juice of Wild Cucumbers dry'd. It is a violent *Cathartic*, and seldom prescrib'd but in stubborn and desperate Cases.

LAPIS

LAPIS INFERNALIS, or the *Infernal Infernal Stone*. Stone; the Composition of which is as follows:

Take Capital, i. e. the strongest Soap-Lees, any Quantity, and evaporate to a Dryness, and keep the Residue in a Glass well stop'd.

LAPIS de GOA, or the Goa Stone. The Pre- *Lapis de Goa* scription for making which is thus:

Take Hyacinths, Topaz, Sapphires, Rubies, and Pearls, ā ʒi. Emeralds ʒss. Oriental Bezoar, White and Red Coral, ā ʒii. Musk and Ambergrease ā ʒss. Leaves of Gold No xl. Let all be levigated into a fine impalpable Powder, and with Rose-Water made into a Paste, which is to be form'd into long or oval Balls, and polished.

BESIDES these *Officinal Compositions*, there arise several other Forms of Medicine from *Extemporaneous* Prescription and Practice, according to the various Exigencies and Circumstances which attend the several Cases and Intentions of Cure: The principal whereof here follow.

MEDICATED Wines, Ales, Meads, Wheys, &c. *Diet-Drinks*. which all come under the general Denomination of *Diet-Drinks*, stand first in Order, and are in all chronical Cases, and where the Disorder of a Constitution is gradually to be gain'd upon, of very great Service. The making of these Wines, Ales, &c. is by taking a due Proportion of Medicinal Drugs and Simples, and hanging in a Bag in common Liquors. Thus, for Instance, to make that famous Diet-Drink call'd Dr. Butler's Ale,

Take Betony, Sage, Agrimony, Garden Scurvy-grass, Roman Wormwood, ā m. iii. Roots of Elicampane and Horse-radish ā ʒiv. Mix and put them into a Bag, and hang it in cong. iv. of new Ale while it works. N. B. This is an admirable Antiscorbutic.

EMULSION is a liquid Form made by blanch- *Emulsions*. ing and bruising oily Seeds and Kernels in a Marble Mortar with a Wooden Pestle, and beat up into a Paste: Then the Liquors order'd are to be put in by degrees, and beat up with the Mass, that so the whole Pulp may be wash'd out; and the Liquor squeez'd out and strain'd, being of a milky Colour, is the Emulsion intended, and is generally of the Emollient Kind. Thus to make the *Cordial Emulsion*,

D d

Take

Take *Plague and compound Piony Water* ā *z*iv.
Citron Seeds ʒss. to which, when made into an
Emulsion and strain'd, add *Pearl Sugar* ʒiii. and
Oil of Nutmegs gr. i.

Juleps.

JULEP is a Form made of Simple and Compound Water sweeten'd, and serves principally as a *Vehicle* or *Diluter* to other Forms not so convenient to take alone. Thus for a *Diuretic Julep*,

Take *Parsley-Water* *z*iv. *White-Wine* ʒvi. *Oil of Tartar per Deliquium* ʒii. *Syrup of Marshmallows* ʒi. and mix them for a *Julep*.

Potions.

POTIONS or *Draughts* are a Liquid Form of Medicine to be drank at once, or at one Draught. And thus several other Forms, as *Powders*, *Electuaries*, &c. which to some People are irksome or loathsome in Substance, may yet be easily taken in a *Potion* or *Draught*, being dissolved in any proper Water or *Julep*.

Linctus's.

LINCTUS'S and **LAMBATIVES** are Forms thus call'd, as being to be lick'd up with the Tongue. These made a wonderful Noise and Show in the ancient State of this ostentatious and verbose Art, but are now much reduced; nothing but *Pectorals*, and what is grateful to the Taste, being reducible hereto.

Bolus's.

BOLUS, or *Bole*, originally signifies a fat Earth, as the *Armenian Bole* or *Earth*, &c. but in Medicine it is applied to that extemporaneous Form of one Dose, and of the Consistence of an *Electuary*, too well known to want further Description.

Gargarisms.

GARGARISMS are a liquid Form of Medicine, made of Acids and Subastringents, to wash the Mouth withal, in order to cool and cleanse it from *Phlegm*, &c. Or else are smooth and mucilaginous, to soften and heal it when sore and parched. Take an Example of a *Detergent Gargle*, thus:

Take *Spring-Water* ʒvi. *Rose-Water* ʒii. *Syrup of Mulberries* ʒiss. *Oil of Vitriol* gr. xv. or q. s. to make it agreeably acid.

Lotions.

LOTIONS are, properly speaking, those Washings which are used for beautifying the Skin, and call'd *Cosmetics*; they are therefore made of such Ingredients as answer the Intention of repelling Eruptions, Pimples, and all cutaneous Foulnesses. The following is a very repelling *Lotion*.

Take

Take common White Vitriol ʒi. Crude Alom ʒii. boil in ʒxii. of Spring-Water to ʒviii. Take off the Scum, and put it up for Use.

COLLYRIUMS are a Form of Medicine *Collyriums.* suited to the Eyes, and are designed to cool and repel hot sharp Humours; to which End therefore

Take Rhafis's White Troches ʒi. Rose-Water ʒii. Or, Take Calamine levigated ʒfs. Rose-Water ʒii. Or, Take Tutty levigated ʒfs. Rose-Water ʒii. Or, Take White Vitriol and Sugar of Lead ā gr. v. Rose-Water ʒii. With any of these wash the Eyes at Discretion.

EMBROCATION; this I have already declared the Nature and Use of, and shall here only subjoin an Example of its Composition. *Embrocations.*

Take Oil of Tartar per Deliquium ʒi. Spirit of Sal Ammoniac ʒii. Spirit of Wine ʒviii. Mix for Use.

FOMENTATIONS being already described, *Fomentations.* I shall here only give a Recipe for one against the Scurvy.

Take Ground-Pine and Henbane ā m. ii. Winter's Cinnamon ʒfs. Horse-radish Roots, and Earth Worms added at last ā ʒii. Boil in Lime Water ʒliii. to ʒlii. and to the Straining add Spirit of Scurvygrafs ʒii. and Opium ʒi.

LINIMENT; this is also described as to its Use. The Manner of its Composition you will see by the following Example of one for sore Eyes. *Liniments:*

Take fresh Butter without any Salt ʒiv. White Wax ʒi. Tutty prepar'd ʒfs. Camphire ʒii. Make all into a Liniment.

CATAPLASMS are made after the Manner of this following one against *Apoplexies* and Disorders of the Head.

Take Powder of Cloves and Nutmegs ā ʒii. Guinea Pepper ʒfs. Mustard ʒvi. four Leaven ʒliii. Compound Spirit of Lavender ʒfs. and make into a smooth Poultice. *Cataplasms.*

PLAISTERS are also made by extemporaneous Prescription in various Ways, and to answer divers Intentions; as the following *Hysteric* Plaster. *Plaisters.*

Take strain'd Galbanum ʒfs. Assa-Fœtida ʒii. Yellow Wax ʒi. Camphire ʒfs. Oil of Amber gut. x. Make them into a Plaster for the Navel.

Glysters.

GLYSTERS consist of Materials comporting with the Intention, whether *Cathartic*, *Emollient*, *Cordial*, *Restringent*, &c. as in the *Common Laxative Glyster* following.

Take common Glyster Decoction $\mathfrak{z}\text{x}$. Honey of Mercury $\mathfrak{z}\text{ii}$. Common Salt $\mathfrak{z}\text{ss}$. Oil of Camomile $\mathfrak{z}\text{i}$.
Mix for a Glyster to give milk-warm.

Injections.

INJECTIONS are made, in like manner, of a liquid Form, and according to the following Example of one for a *Gonorrhœa*.

Take Rhasis's White Troches $\mathfrak{z}\text{iii}$. Camphire $\mathfrak{d}\text{i}$. Dissolve them in Spring-Water $\mathfrak{z}\text{xii}$. for an Injection, to be injected into the Urethra two or three times a day.

Suppositories.

SUPPOSITORIES are generally made with a Bit of the *Aloephangine Pill*, or the Extract of *Rudius*; and for Children they mostly use *Violet Comfit*, sold by the Confectioners. This being roll'd up in a convenient Bigness and Shape, is dipp'd in Oil, or rubb'd over with Butter to facilitate their Passage: And thus others are made of proper Materials for Parts and Purposes.

Frontals.

FRONTALS are Forms of Medicine so call'd because applied to the Temples and Forehead in violent hot beating Pains of the Head, and when the Eyes are afflicted with Rheums, &c. Thus for a *Cephalic Frontal*,

Take Rose Cake, fry it in Vinegar, and sprinkle it with Powder of Nutmegs, $\mathfrak{z}\text{i}$. Zedoary $\mathfrak{z}\text{ss}$. and Camphire $\mathfrak{d}\text{ii}$. This, when applied, is to be moisten'd with Vinegar so often as it grows dry, till it has answer'd its End.

Epithems.

EPITHEMS are any outward Application, but chiefly those of a liquid Form, like Fomentations, as may be seen by the following Recipe for an excellent *Cephalic Epithem*.

Take Hungary Water $\mathfrak{z}\text{vi}$. Compound Spirit of Lavender, and Spirit of Saffron, $\mathfrak{a}\mathfrak{z}\text{ii}$. Apoplectic Balsam $\mathfrak{d}\text{i}$. Oil of Cloves gut. x. Mix and rub the Temples, Nostrils, &c. therewith in swooning Fits and nervous Disorders of the Head.

Sternutatories

STERNUTATORIES are all Things that, when applied to the Nostrils, will excite Sneezing, as all Sorts of Snuffs; but in some particular Exigencies, some special Sternutatory may be necessary; and the

the following is preferable to all other Medicines to this Purpose.

Take *Sal Volatile Oleos.* ʒii. *Spirit of Lavender* gut. xx. *Damask Rose Water, or Orange Flower Water,* ʒfs. *Mix for Use.*

SACCULUS, or *Bag*, is a Form sometimes used *Sacculus.* in common Practice, and order'd in extemporaneous Prescriptions. These *Medicinal Bags* are fill'd with proper Simples, and applied to the affected Part sometimes dry, and sometimes dipped in hot spirituous Liquors, and applied as hot as can be born: They are also wore upon a Part very often for a considerable time, &c. The following is reckon'd very good for weak Stomachs.

Take dry'd *Mint* ʒfs. *Wormwood, Thyme, Red Rose Water,* ā ʒii. *Balaustines, Angelica Root, Caraway Seeds, Nutmegs, Mace, and Cloves,* ā ʒi. Make all into a gross Powder, put it into a Bag, and wear it on the Stomach for some time.

SUFFIMENTS or *Fumes* having been already *Suffiments.* describ'd as to their Nature and Manner of Use, it only remains that I here subjoin an Example of their Composition, which take in that which is prescribed against the *Falling down of the Womb.*

Take *Myrrh, Mastich, Cinnamon, and Spikenard,* ā ʒi. *Mint and Red Roses* ā ʒii. *Zedoary and Pimento* ā ʒfs. Make into a gross Powder to burn upon a Chafingdish of Coals under a Chair with a Hole in it, over which the Patient is to sit and receive the Fumes.

A **NODULE** is only a few *Medicinal Simples* *Nodules.* tied close up in a little Piece of Silk, and suspended in Juleps, Apozems, &c. and are often serviceable held under the Nose; for which Cause they are often prescribed, as in the following Manner:

Take *Species Diambrae* ʒfs. *Oil of Cloves, Lavender, and Marjoram,* ā gut. iii. *Volatile Sal Ammoniac* ʒi. Rub them together, and tie up in a Piece of Silk for Use. N. B. This held frequently under the Nose, proves a very useful and grateful Cephalic.

CUCUPHA is an ancient Form of quilting *Cucupha.* Spices into a Cap to be wore upon the Head in Disorders of the Nerves and Head, but are now very rarely prescribed

prescribed or used ; tho' they may be useful on many Accounts.

Pessary.

A *P E S S A R Y* is an oblong Form of Medicine to thrust up into the *Uterus* upon some Exigencies ; and one for promoting the *Menses* may be made as here prescribed.

Take Powder of Myrrh ʒii. Savin Tops, Oil of Aniseed, ā ʒss. with the Yolk of an Egg bring them into the Consistence of an Unguent, which rub over Pieces of Gentian Root, form'd S. A.

Turundæ.

TURUNDÆ, or *Pellets* for the Tooth-Ach, are thus to be made :

Take Mastich ʒi. Camphire and Opium ā gr. ii. Oil of Origany gut. i. Make into a Pellet. Or, Take Frankincense and Matthew's Pill ā gr. x. Oil of Cloves gut. i. and make into a Pellet.

THESE are the most usual and considerable Forms of Medicine of the *Officinal* or *Extemporaneous* Kind now in Use. As for *Broths, Pastes, Peas, Tents, Necklaces, Ptisans, Possets, &c.* they are some of them well known, others frivolous and chimerical, and all of too little Moment to be mention'd here.

C H E M I S T R Y.

Of Chemistry.

C H Y M I S T R Y, or, as it should be wrote, *Chemistry*, is an Art whereby sensible Bodies contain'd in Vessels, are so changed by means of certain Instruments, and especially *Fire*, that their several Parts of different Natures become disunited or separated, their several Powers and Virtues are thereby discovered, with a View to the Uses of *Medicine, Natural Philosophy*, and other Arts and Occasions of Life.

Its Antiquity.

Chemistry boasts an Antiquity superior to all other Arts, and equal to that of *Fire* itself, or, at least, the Knowledge of its Use ; *Egypt* being the Country which first produced it, and *Tubal-Cain* (the Heathen *Vulcan*) its Inventor.

and various Denominations.

THIS Art in various Places, and by divers Persons, has received many and different Denominations : As (1.) *Poietice*, the Art of making or producing Things, (viz. by Fire.) (2.) *Chrysopoiesis*, the Art of making Gold ; and therefore, by way of Pre-eminence, the *Arabians* call'd it (3.) *Alchemy*, which has been since applied

plied to the Art of making Gold, and finding the *Philosopher's Stone*; and they who profess this are call'd the *Adepti* or *Ad-pts*. (4.) The *Hyssopic Art*, by *Paracelsus*, from *Psal. li. 7.* (5.) The *Hermetic Art* from *Hermes Trismegistus*, its supposed Inventor. (6.) The *Spagyric Art*, or the *Art of Extracting and Collecting*, viz. the Virtues of Things. (7.) *Pyrotechny*, or the *Art of Fire*, as being the principal Agent made use of; and *Chemists* are therefore call'd *Pyrotechnists*. *Adepts.*
Pyrotechny.

IN this Art we shall just consider (1.) The *Subjects*, which are all natural compounded Bodies, whether of the *Fossil*, *Vegetable*, or *Animal Kind*. (2.) The *Operations*, as *Calcination*, *Sublimation*, &c. (3.) The *Instruments*; as *Fire*, *Water*, *Menstruums*, various *Vessels*, &c.

THE *CHEMISTS* distribute the Subjects of their Art into three *Kinds*, which they call the *three Kingdoms*, viz. The *Fossil Kingdom*, the *Vegetable Kingdom*, and the *Animal Kingdom*: And these three grand *Genera*, or *Kinds of Bodies*, comprehend all the lesser and subordinate *Species* and *Classes of Bodies* of what Nature soever. *Three King-*
doms of Che-
mistry.

THE *FOSSIL KINGDOM* contains whatever is dug up out of the Bowels of the Earth; and all Bodies thus dug up are call'd *Fossils* or *Minerals*. These are of two sorts. *Simple* and *Compound*. *Simple Fossils* are such whose Parts are all of the same Nature; and are of four Species. (1.) *Metals*, which are in number Six, viz. *Gold*, *Silver*, *Lead*, *Copper*, *Iron*, *Tin*; to which some add *Mercury* or *Quick-silver*. (2.) *Salts*, of which are the following Kinds: *Sea-Salt*; *Sal-Gem*, or *Rock-Salt*; *Nitre*, or *Salt-Petre*; *Sal-Ammoniac*; *Borax*; *Alum*; a vague Salt, or saline Acid. (3.) *Stones*, *Vulgar* and *Precious*. *Precious Stones*, call'd also *Gems* and *Jewels*, are either entirely transparent, as the *Diamond*, *Emerald*, &c. or else *Brilliant* or *Shining*, as the *Bohemian Granate*; or, lastly, *Semi-transparent*, as *Oculus Cati*, *Opal*, &c. (4.) *Earths*, of which there are various sorts; as *Chalk*, *Clay*, *Marl*, *Sand*, &c. *The Fossil*
Kingdom.
Simple Fossils.

COMPOUND FOSSILS are all those whose Parts are dissimilar, or heterogeneous, or may be divided into Parts of a different Nature; as *Antimony* may be resolv'd into *Sulphur* and a *Metalline Part*. The chief Species of *compound Fossils* are (1.) *Hard* *Compound*
Fossils.

Sulphurs, as *Brimstone*, *Arsenic*, *Orpiment*, *Realgal*, *Bitumen*, *Asphaltum*, &c. to which some add *Amber*, *Jet*, and *Ambergrease*. (2.) *Liquid Sulphurs*, as *Pisphaltum* or *Jew's Pitch*, *Naptha*, *Petroleum* or *Oil of Rock*, &c. (3.) *Semi-Metals*, or kind of *half Metals*; as *Antimony*, *Cinnabar*, *Marcasite*, *Bismuth*, *Calamine*, *Cobalt*, *Pyrites*, *Vitriol*, *Magnet* or *Load-Stone*, with several other *Mineral Stones* and *Substances*.

The Vegetable Kingdom.

THE *VEGETABLE KINGDOM* supplies the *Chemists* with Bodies the most simple and resolvable of all others. The Nature and Texture of vegetable Substances render them compleatly manageable by *Chemical Operations*; and therefore a good deal of this Part of *Chemistry* hath been introduced or practised with the *Galenical Pharmacy*, as appears by what goes before. The *Chemists* resolve a *Plant*, or any vegetable Body, into the following Principles, viz. (1.) *Water* or *Phlegm*. (2.) A *Spirit*. (3.) *Salt*. (4.) An *Oil*, and (5.) An *Earth*, call'd *Caput Mortuum*. And each of these, more or less, from every Part, whether *Root*, *Stem*, *Leaves*, *Flowers*, *Fruits*, or *Seeds* of a *Plant*.

The Animal Kingdom.

THE *ANIMAL KINGDOM* comprehends all that Part of the Creation endued with *sensitive Life* and *spontaneous Motion*, that is, all Sorts of *Animals*. Every Part of an *Animal* also, whether *Bone*, *Flesh*, *Hair*, *Horn*, *Shells*, *Humours*, as *Blood*, *Milk*, *Urine*, &c. are subject to the *Chemical Analysis*: For the *Chemists* reduce any *Animal Substance* into the following component Principles, viz. (1.) A *Spirit*, being a sulphurous oily Matter, volatile, and miscible with *Water*. (2.) *Water*, even from the driest *Bone*. (3.) A *Salt*, but neither *Acid* nor *Alkaline*, *Fix'd* or *Volatile*, but a compound Sort. (4.) *Oil*, which is compounded of a *Volatile Oil* and *Earth*. (5.) *Earth*, a little more *Volatile* than that of *Vegetables*, and perfectly *immutable*.

Of Chemical Operations.

HAVING taken a short View of the *Materia Chemica*, we now proceed to speak of the principal Operations of the Art: For though the *Chemist* pretends to no more than a *Solution* or *Separation* of the Parts of natural Bodies, or else an *Union* or *Coagulation* of them, yet divers Methods or different Operations are requisite to obtain either of those Ends; the chief whereof are the following, viz. (1.) *Calcination*. (2.)

Filtra-

Filtration. (3.) *Clarification.* (4.) *Distillation.* (5.)
Diffolution. (6.) *Fermentation.* (7.) *Digestion.* (8.)
Extraction. (9.) *Crystallization.* (10.) *Incorporation.*
 (11.) *Sublimation.* (12.) *Precipitation.* (13.) *Coh-*
bation. (14.) *Amalgamation.* Of which in Order.

CALCINATION is such a Management of *Calcination.*
 Bodies by Fire, as brings them to a *Calx*, by forcing
 off all the Moisture, in which State they are easily re-
 ducible to Powder, and is for that Reason term'd *Chemical Pulverization.* This Operation is seldom per-
 form'd without *Melting* or *Fusion*, being chiefly em-
 ploy'd about *Metals* and *Salts*: For after those hard
 Bodies are *fused* or *liquified* for a long time, the subtil
 Particles fly off, and the Fire is so intimately mix'd
 and blended through all their Substance, that the Flui-
 dity can no longer subsist, but there is produced a third
 sort of Body, very *brittle* and *porous*, and easily re-
 duced to Powder. To *Calcination* belongs *Vitrifica-*
tion, or turning Bodies, as *Flint*, &c. into *Glasses*, or a
 Substance *pellucid* and like thereto.

FILTRATION is a Method by which *Liquors* *Filtration.*
 are render'd fine and clear; and is performed either
 by passing the Liquor through a *Paper*, which by rea-
 son of the Smallness of its Pores admits only the finer
 Parts through it; or else by laying a Cord or Piece of
 Cotton, &c. one Part *in the Liquor*, the other to hang
 over a Vessel placed below the said Liquor; for thro'
 this it will ascend and drop over very fine, and clear
 from the foul and grosser Parts.

CLARIFICATION or **DEPURATION** *Clarification.*
 is another way of purifying and improving some Me-
 dicines, as *Decoctions*, and other turbid Liquors, which
 is done by beating them up with the Whites of Eggs to
 a *Froth*, which upon boiling will entangle the grosser
 Parts, and carry them up to the Top in a tough *Scum*,
 which then is to be taken off with a Spoon, or separa-
 ted by the *Hippocrates's Sleeve*, which is a thick flan-
 nel Bag.

DISTILLATION is causing by Fire an Ascent *Distillation.*
 or Elevation of the Particles of Bodies in Form of *Va-*
pour, which afterwards are condensed and descend in
 Form of *Drops*; and this is done by the *Retort* in a
 Sand Heat, by the *Alembic*, or by the *Cold* (or *Common*)
Still: The Manner of which has been already hin-
 ted.

DISSO-

Dissolution.

DISSOLUTION is the dissolving of the natural Cohesion of the Particles of solid Bodies, by which Means they are set in *Motion*, and the Bodies are brought into a State of *Fluidity*. Thus Salts are dissolved by various *Menstruums*, as *Air*, *Water*, &c. Thus also Gold dissolves in *Aqua Regia*, and Silver in *Aqua Fortis*. Lastly, *Metals* will dissolve in a *Saline Menstruum*, and *Resins* in a *sulphurous* one.

Fermentation.

FERMENTATION is a Term of a very lax and vague Idea, though in general nothing more than an *intestine Motion* caused in the Particles of Bodies by the Admixture of such Matter as contains *subtil spirituous* Particles wrapped up in *viscid* ones, is understood thereby: For the spirituous Particles being always upon an Endeavour to release and extricate themselves from the viscid ones, will, till they obtain their Liberty, produce a *Commotion* in the *Medium* wherein it happens. Of *Fermentation* there are various Species, which are of different Uses in the *Chemical Pharmacy*, and especially the Fermentation of Vegetables and their Juices, whereby their Medicinal Efficacies are exalted by disengaging and separating the finest and most spirituous Parts thereof.

Digestion.

DIGESTION is that Solution of Bodies as is made by *Menstruums* by the Assistance of Fire, and differs in little else than the Fire from the common Dissolution of Bodies before described. And indeed all kinds of *Solution* depend upon this general Principle, *viz.* That the Particles of the Body to be dissolved be by Fire, or otherwise, so far attenuated that their *Specific Gravities* become less than that of the *Menstruum*, or *Tenacity* and *Resistance* thereof; for otherwise they could not be sustained or suspended therein, and mix'd therewith; but would sink directly to the Bottom, and there consolidate again.

Extraction.

EXTRACTION, taken in its largest Sense, signifies any *Solution* of Bodies made by *Menstruums*, wherein not the whole Substances, but only certain Particles are carried off, or absorb'd thereby. But what is properly call'd *Extraction*, and is *here* intended, is such an *Inspissation*, or thickening of a *Solution*, as when a certain Quantity of the *Menstruum* is drawn off, the remaining Mixture is reduced to the Consistence of Honey. But of this I have already spoken under the *Galenical Pharmacy*.

CRYSTALLIZATION is the bringing of *Crystallization.* the Particles of Saline Substances into such a State or Consistence as to resemble the Form of *Crystal*, but variously modified according to the Nature and Texture of the Salts. The Method is this; the *Saline Body* is dissolved in Water, afterwards the Solution is filter'd, which being evaporated till a thin Film appear on the Surface, it spontaneously runs into *Crystal*.

INCORPORATION is a Process which *Incorporation.* brings and joins together, by the Interposition of a *particular Body*, such others, as in themselves are incapable, or very difficult to be *mix'd* or *incorporated* together. Thus *Oils* and *Syrups* are incorporated in *Eclegma's* and *Linētus's*, by means of *Sugar*, *Salt*, or such like Substances; thus a *Mixture* of *Turpentine's*, *Balsams*, &c. with *aqueous Liquors* is effected by the Interposition of the Yolk of an Egg; and thus a Mixture of Metals is likewise produced by *Amalgamation*.

SUBLIMATION is the raising and elevating *Sublimation.* the *solid* and *dry* Parts of Bodies by means of Fire, in like manner as the *fluid* Parts are rais'd by *Distillation*. The Subjects of this Process are all *volatile Bodies*, or such which contain *volatile Parts*, as Salts of *Animal Substances*; thus the Salts of *Minerals* are sublimed, and the Salts of *Vegetables*, as Salt of *Tartar*, &c. By this Method are obtain'd those fine soft Substances call'd *Flowers*; as *Flowers* of *Sulphur*, *Antimony*, *Bismuth*, &c.

PRECIPITATION is that Process by which *Precipitation.* Particles of Bodies dissolved and suspended in a *Menstruum* are made to *sink* or fall to the Bottom thereof. The Particles sometimes precipitate of their own accord, but oftener by the Assistance of some other Liquor added to the *Menstruum*. As Bodies can't be sustain'd, till they are render'd specifically *lighter than the Menstruum* in which they are dissolv'd, so, on the contrary, if any *Menstruum* be made lighter than the said dissolv'd Particles, 'tis plain they can't be sustain'd or suspended any longer, but must fall to the Bottom. This is the *Reason* of *Precipitation*, and is effected two ways, *viz.* by dropping into the *Menstruum* a Liquor specifically *lighter* or *heavier*; the first renders the *Menstruum* lighter than before, and

and therefore unable any longer to suspend the dissolved Body; and the heavier Liquor, what with the *Weight* of its Particles, and the *Impetus* they acquire in their Descent, carry down and sink all the solid Particles they meet with in their way. In the first Case, the Spirit of *Sal Ammoniac* will plentifully precipitate the Filings of Metals dissolv'd in *acid Menstruums*; and in the latter, *Water* alone will precipitate Tinctures of *Vegetables* extracted by Spirit of *Wine*.

Cohobation.

COHOBATION is a Sort of repeated *Distillation*, or such wherein the Liquor first drawn off, is (instead of fresh Water, &c.) again return'd upon the Subject to be drawn off a second Time; which is again cohobated, or pour'd on the Subject in the Still, and so is continued or repeated several Times; the Intention of which is to open and separate mix'd Bodies, to extract their Virtues more essentially, to volatilize Spirits, &c.

Amalgamation.

AMALGAMATION is a Process employ'd about Metals, and consists in mixing Mercury with them when fused or melted, in order to fit them to be extended on some Works, as Gold; or else to reduce it to a very subtil Powder, by evaporating the Mercury. No Iron or Copper can by any means be amalgamated.

Of Chemical Instruments.
Elements.

THE INSTRUMENTS used in *Chemistry* are of three several Kinds, viz.

FIRST, the **ELEMENTS**; as (1.) *Fire*, on whose Agency all the Art depends, for 'tis by Fire the Particles of Bodies are forced apart, and put into Motion; as in *Distillation*, *Sublimation*, *Fusion of Metals*, &c. (2.) *Water*, whose Use is general and well known in *Chemical Operations*. (3.) *Air*; this is consider'd by *Chemists* as an almost universal Dissolvent, and as such properly belongs to the next Head. (4.) *Earth*, which is of various and frequent Use in this Art; as in *Lutings*, *Sand-Heats*, &c.

Menstruums.

SECONDLY, **MENSTRUUMS**; which are any Kind of *Dissolvents*, or *Liquids*, which by steeping or digesting Bodies in them, do by Degrees dissolve or disunite the Particles of those Bodies, and so change them from a *solid* to a *fluid State*. And of this Sort of *Instruments* are *Air*, *Water*, *Spirit*, *Mercury*,

cury, and various others both *Natural* and *Chemical Preparations*, especially of the *Acid Tribe*.

THIRDLY, *VESSELS* or *Utenfis* of divers *Utenfis*.
Sorts; as *Furnaces* of several Forms and Kinds, *Alembics* and *Stills*, *Retorts*, *Receivers*, *Cucurbits*, *Matrasses*, *Crucibles*, *Lingots*, *Coppels*, *Aludels*, *Cranes*, &c. all which to describe here would answer but little Purpose; since a just Idea of their Forms and Uses is only to be obtain'd either by large Prints, or an actual View of them in the *Laboratories* of the *Chemists*.



Of



Of PHYSIC; or the THEORY of MEDICINE and DISEASES.

MEDICINE
or PHYSIC
defined.

Its Object.

*Medicine
divided into
five Parts;
Physiology,
Pathology,
Semeiotics,
Hygieina,
Therapeutics.*

*Of Physiology,
and what it
teaches.*

*The Animal
Structure and
Oeconomy.*



EDICINE, or, as it is commonly call'd, *PHYSIC*, consists in the Knowledge of those Things, by the Application of which the Health of Bodies is preserved or restored, by removing Diseases. The *Object* therefore of *Medicine* is the Life, Health, Disease, and Death of Mankind; the *Causes* whence they arise, and the *Means* by which they are governed.

THIS Art is divided into five great Parts, *viz.* (1.) *Physiology*, in a strict Sense so call'd, which respects the *Nature* of the Human Body. (2.) *Pathology*, or the Doctrine of Diseases. (3.) *Semeiotics*, which relates to the *Signs* and *Indications* of Diseases. (4.) *Hygieina*, or that which prescribes Rules for the Conservation of *Life* and *Health*. (5.) *Therapeutics*, which treats of the *Materia Medica*, and Cure of Diseases.

PHYSIOLOGY, the first and most philosophical Part of Medicine, explicates (1.) The Nature, Structure, and Parts of the Human Body, with their Use in the whole *Animal Oeconomy*. (2.) What *Life* is, and wherein it doth consist. (3.) What the true Notion of *Sanity* or *Health* is: And, (4.) The various Effects of *Life* and *Health*, or a good State of the Animal Constitution: All which Particulars are call'd the *Res Naturales*, or Things according to Nature.

THE *Structure* or *Constitution* of the Human Body, and the Use of the Parts in its *Oeconomy*, hath been already explain'd in the Chapter of *Anatomy*, and is thence to be learn'd.

LIFE

LIFE is said to be *that Condition of an Animal Life, what. Body*, which, both with respect to the *solid and fluid Parts*, is absolutely requisite, that there might subsist a mutual *Union and Commerce* between the *Body and Mind*, in some certain *Manner*; or which, when impair'd, may be some how restor'd without necessarily destroying the same.

HEALTH or *Sanity* is that *Affection of Life Health,* which arises from that due *Structure, Conformation, Temperament, and Oeconomy* of an *Animal Body*, whereby all the *Parts* thereof are in a proper Condition to exert all their *Natural Actions and Functions* of Life, with a requisite Degree of *Facility, Delight, and Constancy*. Or, *Health* is a *right Exercise* of the *Actions* of the *Solids and Fluids* according to the *Laws of Nature*, whereby the *Circulation* of the *Blood* is maintained thro' the *minute Arteries* without *Obstruction*. And this *Disposition* of the *Parts*, and the *Whence it* *Justness* of their *Actions*, which is the *Foundation of* *proceeds.* *Health*, proceeds from, or is the *Effect* of what is call'd the *Equilibrium Naturæ*, or *Balance of Nature*; which is defined to be that *equal Temperature* of the *Solids and Fluids* wherein the *Blood* is capable of circulating freely; the several *Secretions* are made therefrom in the exactest Proportions, and the *Excrements* excern'd, by all the different *Emunctories*, without the least *Obstruction*.

THIS BALANCE of NATURE itself arises *The Balance of Nature.* from that proper *Tone, Tensity, Springiness, or Contractile Power* of the *Fibres* of the *Solids*, as effects a due *Circulation, Liquidity*, and requisite *Secretions* of the *Fluids*. While the *Body* enjoys this *even Standard State*, it is possess'd of the most desirable *Serenity, Ease, Pleasure, and Chearfulness of Mind*. But if the *Constitution* rises above, or sinks beneath this *Balance of Nature*, there will ensue *Diseases* of two different *Kinds*, as will be describ'd under the next general *Head*, unto which we are now come.

PATHOLOGY, the second great Part of *Physic, Of Pathology.* treateth of *Diseases*, and declareth (1.) What a *Disease* is, and the *Nature* thereof. (2.) The *Differences* of *Diseases*. (3.) The *Causes* of *Diseases*; and (4.) The *Effects* thereof. And in regard of this fourfold *Division* it is said to be *Pathological, Nosological, Etiological, and Symptomatological.*

PATHO-

Disease defined.

PATHOLOGICS expounds the *Nature of Diseases*, and defines a *Disease* to be *that State of a living Body which takes away the Faculty of exerting any of its proper and necessary Actions.* Or, A *Disease* is the *Effect of that State wherein the Natural Actions of the Solids and Fluids are perverted in their Motions, either above or below the Balance of Nature, which constitutes the Standard of Health.*

THEREFORE as long as the *Solids* are destitute of their due *Tone and Vigour*, so long will the *Fluids* lose their proper Degree of *Fluidity, Purity, and Direction of Motion*; so long will the *Body* conceive *Disorder, Pain, and Disquietude*; so long will the *Faculties* intermit their proper Springs for the *Well-being of the Machine*; so long will the *Animal Oeconomy* be disturb'd and dissolv'd in *Confusion*; so long will *Uneasiness and Pain* afflict the *Senses*, and *Weakness, Languor, and Inactivity* accrue to the *Body*; and a *Person* affected with this unhappy State, we call a *sick or unhealthy Person*, and, if under a *Physician's Care*, a *Patient*.

Nosologia, or Doctrine of Diseases.

NOSOLOGIA distinguishes the several *Differences of Diseases*, and thereby ranges them into *Classes of divers Kinds.* Diseases are different on many Accounts; for (1.) They differ with respect to their *Causes*; and thus they are said to be *Idiopathic*, or from a *proper Affection of the Part*; *Sympathetic*, which arise from the *Affection of another Part*; *Hereditary*, or which we derive from our *Parents*; *Connate*, or which we were born withal; *Acquired*, or which we have gotten accidentally, &c. (2.) In respect of the *Parts of the Body*, as the *Diseases of the Fibres, of the Organs, and of the different Humours or Fluids.* (3.) In respect of the *Subject or Sex*; as the *Diseases of Age, of Infants, of Children, of Youth, of Adults, and of old Folks.* And again, there are *Diseases proper to Men, to Women, to Virgins, to the Pregnant, to Women in Labour, to Nurses, &c.* both universal and particular. (4.) In respect of *Time*, *Diseases* are said to be *acute or chronical*; *acute* if they terminate within twenty Days; *very acute* if within seven Days; and *most acute* if within four: All the rest are *chronical.* Again; they are said to be *vernal* which happen properly in the *Spring*, *autumnal* if in *Autumn*; also

continual, continent, intermittent, &c. (5.) In regard of their *Nature* and *Effects*, they are said to be *wholesome, benign, malignant, curable, incurable, deadly or mortal, &c.* (6.) With respect to the Manner of Propagation, they are said to be *contagious* when caught by *Infection, epidemical* when the *Infection* is universal, and the *Contagion* spreads over the Land, City, &c. *endemical* when it is proper to the *Inhabitants* of any particular Country.

A *DISEASE* is also consider'd with respect to *The States of* the several *States* or *Periods* it passes thro' from first to *a Disease.* last; and they are as follow: (1.) *Arche*, or the *Beginning* of the Disease. (2.) *Anabasis*, or the *Growth, Increase, or Progress* thereof. (3.) *Acme*, or the *State* or *Height* of the Disorder. (4.) *Paracme*, or *Decrease* or *Declension* of the Disease. (5.) The *End* or final *Removal* thereof.

IN all intermitting Disorders, as *Agues, Fevers, &c.* the Access or Coming-on of a *Fit* is call'd a *Paroxysm* of the Disease, or an *Exacerbation* or growing worse. In *acute* Diseases, which consist in the *Humours*, the Matter of the Distemper is, for the most part, at a certain Time so disposed, that there is a sudden *Change* or *Mutation* of the Disease to *better* or *worse*, to *Health* or *Death*; which *Alteration* is call'd the *Crisis* of the Disease, and the Matter so disposed the *critical Matter* thereof.

ÆTIOLOGY is that Part of *Pathology* which *Of Ætiology.* treats of the *Causes* of Diseases. The *Cause* of a Disease is any thing which occasions in us a *Sensation* of *Pain* or *Sickness*, whether it be by producing a *new* and *morbific* State of the *Solids* and *Fluids*, or by *taking away* any thing *absolutely requisite* to the *Exercise* of the *Functions*.

THE *CAUSES* of Diseases are generally divided *Causes of* into (1.) *Internal*, when it was pre-existing in the *Diseases.* Body before the *Effect* was produced or did appear: These first disaffect the *Humours*, then the *solid Parts*. (2.) *External*, which exists without the Body, and afterward applied thereto, breeds a *Disease*: These generally hurt the *Solids* first, and then the *Humours*. (3.) *Remote*, which is not wholly sufficient of itself for producing of a Disease, but only so alters the Body as renders it *apt* and *susceptible* thereof, in case any other Cause should occur and join its baneful In-

fluence. Both these together make the (4.) *Proximate Cause of a Disease*, which is no other than that whole Cause which gives Being to, and by its Presence continues the present Disease, and which being removed, the Distemper will instantly cease.

*The primary
or general
Cause.*

BUT the *immediate, primary, and most general Cause or Spring* of all Diseases, whether *acute, chronic, or complicated*, results from the *Elevation or Depression* of the *Tone* of the *Vessels*, and the *Motion* of their *Fluids* above or beneath the *Balance of Nature*; and the several Degrees thereof produce the several Degrees of Diseases: For too great a Contraction of the Vessels will increase the Division of the Blood, which again will increase the *Motion, Quantity, and Heat* of the Blood; whence *Fevers* of several Kinds arise, and many other Disorders.

*The Remote
Cause.*

THE *Remote Cause*, inherent in the Body, is call'd the *Proegumenical or pre-disposing Cause*; and such is a *vitiated Temperament* in regard of Heat or Cold, a *Plethora*, and *Cacochymia*, or *ill State* of the *Fluids*. The Cause which is *accessory* to this, and together make the Disease, is call'd the *Procatartetic Cause*; and this improves the pre-disposed Constitution or Part into a real morbid State, and subjects it to actual and immediate *Illness*.

*Remote and
proximate
Causes,
whence.*

THE *Remote and Proximate Causes* arise from Principles of various Kinds, but may be reduced to four general Heads, which are (1.) The *Ingesta*, or Things receiv'd into the Body, as *Air, Meat, Drink, Medicines*; as also all manner of *Fumes, Scents, Contagions*, and other *invisible Species* which enter unseen the small *Pores and Spiracles* of animal Bodies, or by any other Passages whatever. (2.) The *Gesta*, or Things done by the Body or any Part, as *Motion, Rest, the Affections* of the Mind; as also *Sleep and Watching*. (3.) The *Retenta and Excreta*, or Things retain'd in, and excern'd from, the Body, whether they are *Salubrious, Recrementitious, or Morbose*; as the *Blood, Saliva, Urine, Semen, Bile, the Fæces, &c.* (4.) The *Applicata*, or Things externally applied to the Body; as *Air, Vapour, Foments, Baths, Raiment, Liniments, Plaisters*, or any thing causing *Wounds, Bruises, Fractures, Corrosions, &c.*

Non-naturals. SOME Physicians, with less Reason and Accuracy, have made the *general Topics or Sources* which minister the

the aforesaid Causes of Diseases to be the following : (1.) Air. (2.) Meat and Drink. (3.) Motion and Rest. (4.) The Passions. (5.) The *Excretions* ; and (6.) Sleep and Watchfulness: While others make only the following six, viz. The *Air, Meat, Drink, Action, Rest*, and the *Passions*. These Things they call the *Res Non-naturales*, or Non-naturals, so call'd because, by an undue or ill Use of them, their natural Effects are not well perform'd, but perverted into the *unnatural* Production of Diseases, as you may see largely exemplified in Books of Physic.

SYMPTOMATOLOGY describes the *Symptoms* of Diseases: That preternatural Accident or Effect which arises from a Disease as its Cause, but yet may be distinguished from the Disease itself, and from its proximate Cause, is call'd the *Symptom* of the *Disease* ; and if in the same Manner it flows from the Cause of the Disease, it is said to be the *Symptom* of the *Cause* : But if it proceeds from any prior *Symptom*, as its Cause, it is call'd the *Symptom* of a *Symptom*. *Symptomatology.*

FROM hence it appears that these first *Symptoms* are again themselves really Diseases, but very dissimilar in Number, Variety, and Effect ; but yet, according to the Doctrine of the Ancients, they are agreeably enough distinguish'd and ranged under the three following Classes: (1.) The *vitiated Actions* of the organical Parts. (2.) The *Vices*, or corrupted State of the *Retenta* and *Excreta*. (3.) The *preternatural* or *vitiated Qualities* of the Body. *Classes of Symptoms.*

THE *Organical* and *Vital Actions* are vitiated in various Ways: For (1.) They may be impair'd and diminish'd ; whence the *Symptom Disorexia* in a distemper'd Appetite, *Dispepsia* in a weak Stomach, &c. (2.) The Action and Power of the Part may be *abolish'd* and *destroy'd* ; whence the Symptom of *Anorexia* in a lost Appetite, *Apepsia* in a Stomach incapable of Digestion, and *Profusions* of several Kinds when the Vessels have lost their retentive Faculty. (3.) They may be too far *excited* and *augmented*, as in the *Palpitation* of the Heart, &c. (4.) They may be depraved and perverted ; as in the *Malacia*, or a Longing-after Things unfit for Food, *Yellow Vision* in the Jaundice, &c. *The Vital Actions how vitiated.*

*Vices of the
Retenta and
Excreta.*

THE *Second Class* of *Symptoms* is the *Vices* of the *Retenta* and *Excreta*, which also are manifold; as the *Deficiency* of *Nourishment* is attended with an *Atrophy* of the *Part*; a *Redundancy* of the *Humours*, or *Plethora*, is attended with *Inflammations*, *Eruptions*, *Profusions*, and other like *Symptoms*. The *Cacochymia*, or *ill* and *perverted State* of the *Humours*, is attended with a direful *Train* of *Symptoms* not to be recounted for *Number*. The *Obstructions* of the *Secretions*, and *heterogeneous Admixture* of the *Excrements*, greatly augment the *Bulk* of this *Class* of *Symptoms*.

*Vitiated Qua-
lities of the
Body.*

THE third and last general *Class* or *Order* of *Symptoms* is made up of the *vitiated Qualities* and *Temperature* of the *Body*. Tho' every particular *Man* has his *Idiosyncrasia*, or *Constitution* peculiar to himself, yet all *Constitutions* are subject to *general Depravations* with respect to the just *Balance of Nature*, whereby the *Qualities*, *Complexion*, and *Temperament* of the *Body* are generally affected with some common *Vice*. Of these *vitiated Complexions* the *Antients* reckon'd the following eight. (1.) The *Hot*; arising from too robust, strong, and contracted *Viscera*, and too sharp, fizy, and accelerated *Humours*. (2.) The *Cold*; arising from just the contrary *Causes*. (3.) The *Humid*; proceeding from a loose and flaccid *State* of the *Solids*, and a *Redundancy* of *Humours* too much diluted, aqueous, and soft. (4.) The *Dry*; from opposite *Causes*. (5.) The *Bilious*; from too great a *Secretion* and *Abundance* of the *Bile*; this agrees with the *Hot* and *Dry*. (6.) The *Sanguine*; or which abounds with great *Plenty* of *Blood*. (7.) The *Phlegmatic*; abounding with too much *Phlegm*, or *pituitous* and *viscid Humours*. (8.) The *Melancholic*; supposed formerly to proceed from a *black sort of Bile*, but it seems rather to proceed from *Causes* similar to those of the *Hot*, *Dry*, and *Bilious*, or rather compounded of them. And these are the *predisposing Symptoms* which give notice what *Diseases* the *Habit* of each *Constitution* is subject to.

*Various Tem-
peraments of
the Body.*

Of Semeiotics.

SEMEIOTICS is that *Part* of *Physic* or *Medicine* which treats of those *Phænomena* or *Signs* of *Diseases* by which the *Physician* is assisted in making a *Judgment* of the *Presence*, *Nature*, *State*, and *Event* thereof, by a just *physiological Ratiocination*.

OF these *Pathognomic* Characters or Signs of *Diagnostics of a Disease*.
 Diseases, there are reckon'd two Sorts, (1.) Those which are call'd the *Diagnostics* or *Delotic Signs*: These are the peculiar Appearances that result from the Causes, and comprehend that Collection of concurring Symptoms that clearly indicate the Presence, Nature, and Intenseness of the Disorder: For every Distemper has its peculiar *Marks* or *Tokens* whereby it is differenced from every other, tho' ever so nearly related by some common Characters. (2.) The *Prognostics* are those *Phænomena* which enable the *Physician* to foresee and foretel the *Event* of the *Disease*, and the *Fate* of the *Patient* consequent thereupon. The *Prognosis* therefore of Diseases is to be taken from the *Intensity* of the *Disease*, the *Force* of the *Symptoms*, and the *Impressions* they make on the Constitution of the *Patient*. *The Prognostics*

THE *DIAGNOSTICS* of a Disease are form'd from the following general and particular *Topics*: *Topics of the Diagnostic Signs*,
 (1.) The *Pulse* of the Arteries; hereby the *Motion*, *Velocity*, *Heat*, and *Temperament* of the Blood is in a great measure indicated. (2.) The *Breath* or *Respiration*; which indicates the *Nature*, *Place*, and *Intensity* of the Disorders of the *Lungs* and other Parts of the *Thorax*. (3.) The *Urine*; which by its *Quantity*, *Colour*, *Odour*, *Taste*, *Fluidity*, and *Contents* inherent in it, discovers very obviously the *State* and *Quality* of the Blood, and the Disposition of the Parts thro' which it comes. (4.) The Parts affected; which, as they are the more *noble*, are the more *dangerous*. (5.) The Degree of *Pain*. (6.) The *Manner* of the *Attack*. (7.) The *Parts communicating*. (8.) The *Temperament* of the *Patient*. (9.) The *Force* and *Effects* of the *Symptoms*.

THE *PROGNOSTICS* of Diseases may also in a good measure be deduced from the foregoing *general Topics*, but more effectually from the following *particular ones*: As (1.) The *Necessity* of the *Function* of the Part indisposed to Life and Health. (2.) The *peculiar Nature* and *Disposition* of the said Part. (3.) The *Increase* and *Malignity* of the Disease itself. (4.) The *Violence* of the *Symptoms*. (5.) The *Excretions*, as Sweat and Urine. (6.) The *epidemical Disposition* of the Air. (7.) The *Season* of the Year. (8.) The *Sex*, *Age*, *Manner of Life*, &c. of the *Patient*. *and of the Prognostics.*

*The Object of
Diagnosis and
Prognosis.*

THE Object of the *Diagnosis* and *Prognosis* of Diseases is more immediately the Matter thereof in its different *Permutations*, which in its first State is said to be *crude*, in the second *mature*, in the third *critical*, which is then generally thrown off by some *critical Evacuations*, as *Vomiting*, *Salivation*, *Fluxes*, by *Urine*, the *Hæmorrhages*, *Bleeding*, *Perspiration*, or *Revulsion* of Humours from one Part to another. Thus the Disease by Degrees either declines and goes off, or becomes more malignant, dangerous, and ends in Death, according as the Time and other Circumstances of the *Critical Evacuations* were favourable and requisite or not. Whence the following *Axioms* in *Diagnosics* and *Prognostics*, and others like them, have been received and established, *viz.* (1.) The *Critical Evacuation* happening after the *Maturity* of the Disease, is always good. (2.) The same happening on the critical Day is good. (3.) It is various with regard to the Time, Age, Temperature, Sex, Region, Season, Disease, and epidemical Constitution of the Air. (4.) It is always bad before the *Maturity* of the morbid Matter. (5.) The *Maturity* or *Digestion* itself is always good. (6.) The sooner the Matter of the Disease comes to a State of Digestion the better, but not so of the *Crisis*. (7.) The more *vital*, *animal*, or *natural* Functions continue the same as they were in Health, the greater Degree of Life, and better Hopes of recovering perfect Health remains. (8.) The more necessary that Function is, on which many others depend as their Cause, and which in a sick Person is affected with the Disease, the more dangerous is his Case. (9.) The more any of the disordered vital Actions change to their natural State, the better the Digestion goes on. (10.) The more the Excrements are like those in Health, the more perfect is the Concoction or Digestion; and the contrary.

THERE are three principal Things by which the Physician is assisted in discovering the Nature, State, Species, Seat, &c. of a Disease, and forming his *Diagnosis* and *Prognosis* of the same, *viz.* the *Pulse* of the Arteries, the *Breath* and *Urine*.

*The Pulse indicates the
State of the
Blood.*

THE PULSE, as it indicates the Manner of the Blood's Motion in all its Variations, is of the greatest Consequence to be well understood; it is the *Compass* by which the *Physician* steers his Course in discovering the

the State of the latent Parts and Regions of the *Microcosm*. By the *Elevation* or *Depression* of the Pulse above or below the *Natural Standard*, he judges the Impulse of the Heart to be stronger or weaker, the Contraction of the Solids to be greater or lesser, and the Motion of the Fluids to be swifter or slower, than what should naturally be. The principal Distinctions or Variations of the Pulse, and their Indications, are as follow.

A *High Pulse* that beats quick, indicates *acute* continual Fevers, and generally attends the *Paroxysms* of *Chronic* Diseases, where the Intenseness of the Pain is apt to create a Fever; for in such Cases the Solids have their Contractions elevated above the natural Tone, which they suffer from the Endeavours of Nature to remove the Cause of the *Paroxysm*. High.

A *Quick Pulse*, if low, is ever a *weak Pulse*; and most commonly attends Malignant Fevers; and arises from Obstructions in the Brain, whereby the Animal Spirits cannot be detach'd in Quantities sufficient to influence the Heart. Hence spring all those fatal *Stupors* and Disorders of the Brain, which the Patient generally sustains under these Circumstances. Quick.

A *Strong Pulse*, if high, is generally an hard Pulse; and indicates inflammatory Fevers, as the *Pleurisy*, *Peripneumony*, &c. which proceed from a *Plethora* or Fulness of the Vessels, which keep the Arteries tense, and distended with their Fluids. Strong.

THE *Pulse* which attends the most acute Pains, or Nervous Disorders, differs but little from what it beats when the Body labours under acute inflammatory Fevers; as in the severe Pains of the *Gout*, *Stone*, &c.

A *slow, weak, equal Pulse* is generally the Concomitant of *Chronic Diseases*, which arises from the over relax'd State of the Solids, and the consequent Viscidity of the Fluids. Yet the *Pulse*, in this Case, is stronger than in Malignant Fevers. This Pulse therefore attends the *Scurvy*, the *Jaundice*, *Melancholy*, and all those of a *cachectic* Habit of Body. And if the Pulse under these Circumstances varies to a *little quicker*, there is a Danger of Wastes, Decays, and Consumptions. Slow.

RESPIRATION, or the *Breath*, is the next principal Sign which indicates to the Physician the internal State of the *Patient*, and the Nature of his Malady. Respiration
another Indi-
cation of the
lady.

State of Pa-
tients.

lady. If the Respiration be *easy, constant and free*, it indicates a good State of the Lungs, and a commodious Transmission of the Blood through them. If it be *difficult*, it denotes the contrary, and is the worst Presage, in all Cases, that can be; If it be at the same time *painful*, it betokens for the most part somewhat of an internal Inflammation, a most *inauspicious Omen*. A *great Respiration* is always a favourable Sign; as, on the contrary, a small one is very ominous. A *gentle Respiration* is in itself the best Sign; but if too *quick*, it declares the Organs of Breathing to be ill affected, and therefore is fearful and dangerous. An *equal and unequal Respiration* is very auspicious or very ominous respectively. A *suffocative Respiration* ordinarily denotes Death shortly; and that is almost as bad which is high and in the upper Part of the *Thorax*. A cold Breath is deadly, as denoting a Gangrene of the Viscera and internal Vessels. A *short, interrupted, and difficult Breath*, every one knows is the constant Concomitant of the *Phthisic* or *Asthma*. But the *Phænomena* of Respiration are wonderfully varied and disturbed in divers Men, according to the native Constitution of the Body, and Formation of the *Thorax*, and other Parts serving to Respiration.

Urine a third
Indication of
the State of
the Body.

THE URINE conduces much to form a just *Diagnosis* and *Prognosis* of the Disorder; but because it has been abused and prostituted to vile Ends and Purposes, the *Urinal* is now brought into general Contempt; and a wise and regular Physician will scarce hear of the *Inspection of Urine*, because the Quack and Empiric so much abuse it; and there is a Statute which prohibits the Members of the College *giving Judgment on Urine* unless present with the Patient to judge of all the other concurring Symptoms. However, 'tis very certain, that the *Urine* is a very proper and useful *Sign*, and highly necessary to be well attended to. I shall therefore point out some Accidents by which it is a very obvious Sign, both *Diagnostic* and *Prognostic*, to the judicious Observer. (1.) An extraordinary Discharge of Urine denotes a *Laxity* of the Parts, a diminish'd Perspiration, an imperfect Mixture of the Blood, or some Nervous and Hysteric Disorders, excessive Drinking, &c. all which are undoubtedly of great Importance to be known. (2.) Too small and sparing a Discharge indicates obstructed Vessels;

Vessels; an Increase of other *Excretions*. (3.) A thin, limpid, aqueous, insipid, tasteless and uncolour'd Urine is a very bad Symptom, and predicts an ill State of the Viscera, Deliriums, Phrensies, Convulsions, and many times Death in acute and inflammatory Diseases. (4.) A red Urine, without a Sediment, in acute Diseases, gives a *terrible Idea* of the Case of the Patient, and foretels it will be attended with fatal Consequences. (5.) The same with a Sediment, presages the Continuance of the Disease; the Weakness or Destruction of the small Vessels; Sweats, Salivation, and colliquative *Diarrhœas*; *Atrophy*; and all sorts of Dropsies. (6.) A *Saffron-colour'd* and *bitter Urine* is always the Effect of the Jaundice. (7.) A green Urine, with a thick Sediment, denotes Melancholy, Iliac Pains, Cholics, Anxieties of the Heart, &c. (8.) A fetid Urine indicates the Salts and Oils to be too much attenuated and dissolved, and almost putrified; and therefore is a *formidable Symptom* both in acute and chronical Disorders, and shews the Cure very difficult. (9.) *Thin Skins* and a *mucous Substance* floating in the Urine, shews a Decay, Waste and Consumption of the Parts. (10.) A *fat* and *oily Urine*, though very rare, yet when it happens, denotes or threatens the *Phthisic* and *Atrophy*. (11.) An apparent colour'd Urine, without Taste, loudly speaks the Powers of Nature destroy'd, and Death at hand. (12.) A *pale, thin Urine*, with a *gritty Sediment*, always denotes the Gravel or Stone in the Bladder. (13.) A plentiful Discharge of Urine is accounted a favourable *Prognosis* under all Diseases, but the *Diabetes*; as on the other hand, (14.) A Suppression, or partial Evacuation thereof, is often a fatal *Omen*; and argues the acute Disease is not at its height, and indicates the *Paroxysm* of Chronic Disorders will be of long Duration.

HYGIEINA is the fourth great Part of *Physic*, *Hygieina, or the Doctrine of preserving Health.* and which treats of the Ways and Means of preserving Health and Life free from the Insults and Attacks of the molesting Infinity of Distempers; and though it be almost impossible to do this in Perfection, yet by a careful and prudent Conduct, Men might enjoy their Health with greater Constancy, and know much less of the Evils and Miseries of Life, which proceed from Diseases, and ill Habits of Body, contracted

tracted in a great Measure by Luxury, Intemperance, and irregular Courses of Life.

The Prophylactic Part of Physic.

THIS *Prophylactic* Part of *Physic*, as it is concerned in conserving Health, and preventing Diseases, doth mainly consist in a due Use, Application, and Regulation of the *Non-Naturals* before-mention'd. But in regard to these, no such *special Rules* can be given as shall exactly suit every particular Man; for by Reason of that *Idiosyncrasy*, or peculiar Habit of every Man's Constitution, which is not improperly call'd a *second Nature*, no one *Regimen* or Manner of Living can be prescribed for all Men, or indeed scarcely for any two: Therefore 'tis in the Physician's Power only to dictate some general Things relating to the Nature, Properties, and Effects of *Meats, Drinks, Air, Motion, the Passions, Sleep, &c.* as may be necessary for every Man to observe. The principal Doctrines of this kind are as follow.

How Health is affected with Alteration of the Non-Naturals

To make a sudden Change or Alteration of one's common or customary Way or Method of Living, Place of Abode, &c. to any thing new or contrary, is always and every where dangerous; even tho' it be from what is vulgarly thought evil, to that which is reputed good.

As of Air.

A dry, serene, which is always an heavy Air, is the most wholesome to every Man in his own Place.

A cold and nitrous Air, tho' it agrees with the Robust, yet is pernicious to weak and infirm Constitutions, by raising the Contractions of the Vessels too high, and thereby occasioning Obstructions in the Capillaries, which produce inflammatory Fevers; as the *Pleurisy, St. Anthony's Fire, &c.*

A hot sulphurous Air is also apt to exalt the Contractions of the Solids extremely, and by its fiery Particles to disturb, vitiate, and embarrass the Actions of Nature to the last Degree; from which Origin arise *Inflammatory, Petechial, Nervose, Epidemical, Malignant, &c. Fevers*, so rise about July and August.

A damp, moist, foggy Air, on the other hand, too much relaxes the Vessels, and thence proceed preternatural Cohesions and Viscidities of the Fluids, affecting the Parts with scorbutic Swellings, Schirrosities, stubborn Coughs, Phthisics, and all those Agues and Intermittent Fevers which pester Mankind in the Winter and Spring Seasons.

A *DIET* of the most simple Meats, void of Fe-
culency and Acrimony, whose Parts are not over
active, similar to the sound Body, and easy to be as-
similated thereto, is the best and most wholesome of
all others. Such are the *frumentaceous* Seeds we eat
in Bread; the *leguminous* Seeds, &c. as Beans, Peas,
&c. the various sorts of Herbs and Plants we use for
Sallad, both Roots and Leaves; divers sorts of Fruits;
and lastly, the young, sound, and tender Flesh of Ani-
mals, and the Broths made of it; as also Milk and
Eggs.

IN some Constitutions, where the *Viscera* are strong
and robust, your soft, humid, tender, light, and pure
Aliments are not so proper and sufficient as are the
more dry, hard, gross, weighty, and feculent Meats,
which satiate Hunger longer, and yield a more sub-
stantial Nourishment.

IN an *alkaline* Temperature of Body, a Diet of
acid Substances, as Seeds, Fruits, Roots, and Leaves
of Vegetables, very much conduce to its Well-being;
and on the contrary, your *alkaline* animal Diet is most
advantageous for Constitutions abounding with *acid*
Salts, since they temper and correct one another.

High-season'd Meats, and Sauces of Acids, Salt,
and Aromatics, heighten the Contraction of the So-
lids above the Standard of Nature, and by their Acri-
mony hurt the very fine Vessels; and creating a false
Appetite, they rather load and surcharge the Body,
than nourish it.

THAT Quantity of Food is always best, that is
follow'd by a Sense of Refreshment, and not of a tor-
pid Heaviness, or Unaptness to Motion; *Sobriety* and
Temperance being always the indispensable Means in
order to *Health* and *Longevity*.

FOR *DRINK*, cold, clear, light, tasteless, scent-
less, brisk running Water is the best for a stout robust
Constitution; if it be only intended to satisfy Thirst,
to replenish and dilute the Humours, and to correct
their Acrimony. But if they are intended to warm
and excite Motion, and attenuate, then good fine
Beer, and clear fragrant and grateful Wines are very
advantageous. A continual Glut of Juices being
charg'd on the Blood, destroys, in time, the Tone
and Texture of the Solids, and brings on *Asthma's*,
Dropsies, the *Gout*, &c.

E X E R-

Exercise.

EXERCISE in a moderate Degree, is attended with the greatest Advantages to Health; but when *excessive* it fails not to infer great Damages to the Constitution, especially in *weak infirm* People, and upon a *full Stomach*. In *hot, sanguine, and bilious* Constitutions, strong Exercise is apt to excite *Fevers, Pleurifies*, and other inflammatory Diseases; and all violent Exercise is very dangerous, and has prov'd fatal to thousands.

Rest.

REST, when opportunely taken, is very refreshing, as every one knows; but even this, if indulg'd to *Excess*, that is, to *Idleness*, perverts into a *Vice* against both *God and Nature*; in which Case the vital Actions flag and lose their natural Vigour, and a gloomy Attendance of Diseases, as *Head-Achs, Vapours, Hysteric Fits, Melancholy, Swoons, Vertigo's*, &c. constantly await the *inactive and sedentary* Life.

Sleep.

SLEEP is a State wherein the Body receives fresh Supplies for recruiting the *Wastes* made by carrying on the animal Actions of the Day; and every one finds the *Slumbers* of the Night are the sweetest Indulgence of kind Nature. But here again the Extremes are pernicious; for if we are very *watchful*, and sleep little, the animal Actions are depressed and infeebl'd, the Spirits exhausted and consumed, and *Deliriums, Phrensies, and Madness* itself invade the Constitution, till at last it is wasted and consumed: While on the other hand, a *sleepy lethargic* Temper impairs the Solids, and renders their Actions *effete and languid*, checks and damps the animal Spirits, and creates *Vapours, Crudities, Viscidities, the Scurvy, Cachexy*, with an universal Waste of the whole Body.

The Passions.

THE PASSIONS and *Affections* of the Mind are absolutely necessary to the Existence of *human Nature*; but as in all things else, so here Extremes (which are mostly on the *Excess*) are of *dreadful Influence* to the Body; nothing being able to effect so great and sudden Alterations in the *vital and animal Actions* of the Body, as the *Passions* of the Mind too much exalted, depressed, and disturbed. Even that noble Passion *Joy*, or *Gladness*, can instantly kill by *Excess*; and what numberless Multitudes are constantly hurried down to the cold Abodes of the *King of Terrors, DEATH*, by his terrible Prime Ministers, *Grief, Horror, Despair, Sorrow, Anguish, Care, Fear*, &c.!

FROM

FROM all which it plainly appears, that a due Regulation of the *Non-Naturals* is that on which our *Health* and *Life* in a great measure depends, and ought therefore to be made the Care and Business of every Man, as it is by all that are truly *rational, wise, and sober*.

THERAPEUTICS is the last great Part of *Physic*; and its Subject is the *Methodus Medendi*, or Manner of *Curing Diseases* by proper *Medicines* and *Remedies*. When therefore the *Physician* is call'd to the Aid of a *Patient*, before he sits down to prescribe, he first surveys the Case of the Patient, and accurately observes the *Symptoms*, and thence infers the *Nature, Cause, Seat, and Greatness* of the *Malady*; and consequently what is indicated to be done in order to the *Cure*.

Of Therapeutics, or Curative Part of Physic.

OF these *Indications* there are reckon'd four Kinds, *viz.* (1.) The *Vital Indication*, which requires the Preservation and Continuance of *Life*, or the Actions of the Vital Faculties as they are in a sound Body. (2.) The *Prophylætic* or *Preservative Indication*, when somewhat is to be done to prevent the approaching Disease by cutting off the Cause thereof, and thereby preserving the Body in Health. (3.) The *Therapeutic* or *Curative Indication*; this shews the Necessity of removing the present Disease by the Application of Remedies. (4.) The *Palliative Indication*; which directs the *Mitigation* or *taking away* some of the *Symptoms* before the Distemper can be wholly remov'd.

Four Kinds of Indication.

By these *Indications* the Mind of the *Physician* is fully inform'd of the various Intentions to be answer'd in order to effect a *Cure*; and accordingly he applies himself to the *Materia Medica*, and consults all the various Classes of Medicines to find those which are most proper to remedy the Indisposition of his Patient; and then prescribes them to be made for his Use.

THE Diseases to which Mankind is subject, are not more numerous than the *Remedies* which Nature hath providently supplied for their Cure: The Field of the *Materia Medica* is every way vastly wide and extensive; whence it is we find Physicians so often boasting (as the *Vicegerents* of Nature) of their *Triple Dominions*, of the *Mineral, Vegetable* and *Animal Kingdoms*. Hence they select and muster their numerous Forces of *Medicines*, and marshal them in various

Of the Materia Medica.

Classes

Classes and Regiments, always in a Readiness to command against the potent and common Enemy of human Nature.

*The various
Classes of Me-
dicines.*

Cardiacs.

Cephalics.

Stomachics.

Hysterics.

*Alexiphar-
mics.*

Carminatives

Agglutinants.

Astringents.

Absorbents.

Analeptics.

I SHALL just enumerate the principal Sorts of *Medicines* made use of in the present Practice of *Physic*, and distinguish them by Names which indicate the Intentions they are appropriated to answer by their peculiar Virtues: They are as follow, (1.) *Cardiacs* or *Cordials*; these raise the Spirits, enliven the Mind, comfort the Heart, and add Strength and Chearfulness to the Body, by increasing the *Springiness* and *Force* of the *Fibres*, and the agreeable Sensations excited by their *Aromatic* and *Spirituuous* Parts. (2.) *Cephalics*; under this Class are comprehended all those Medicines which are good for the Distempers of the Head. (3.) *Stomachics* are all those Medicines as are serviceable to the *Stomach*, which by a peculiar Warmth give both a grateful Sensation and a suitable Tensity to its fibrous Coats, and thereby also excite Hunger and promote Digestion. (4.) *Hysterics*, or *Uterines*, are such Medicines, as by their strong Scent, whether *sweet* or *fetid*, prove serviceable in all Disorders of the *Womb* or *Hysterical Affections*. (5.) *Alexipharmics*, or *Antidotes*, properly are such Things as are given to expel Poisons, or correct them so, that no Mischief follow the taking them: But now *Alexipharmics* signify any Medicines good against Fevers. (6.) *Carminatives* are such Things as expel and dissipate *Wind* or *Vapours* pent up in any Membraneous or Nervous Part. (7.) *Agglutinants*, such as *incrassate* and thicken the Humours, which are thereby rendered more consistent and fit for Nourishment. (8.) *Astringents* are those Medicines which are *binding*; and they act either by the *Asperity* of their Particles, which contracts, corrugates, and binds up the Part; or else thickens the Fluids that they run not off so fast as before. (9.) *Absorbents* are such as by the Porosity of their Parts, either ease the Asperities of the pungent Humours; or, like a Sponge, *drink up* the superfluous Moisture of the Body; and thus they are said to be *Dryers* or *Sweeteners* of the Blood. (10.) *Analeptics* are such as cherish the Nerves, and renew *Spirits* and *Strength*. These four last are call'd *Strengtheners*. (11.) *Emollients* are such as sheath and soften the Asperities of the Humours, and relax and supple the Solids at the same time. (12.) *Restoratives*;

tives; these are near akin to the *Agglutinants*, but being of a more subtil and adhesive Nature, they pass the finest *Strainers*, or *Secretions*, and enter into the Nourishment of the remotest Parts, repairing the Wastes of the Constitution. (13.) *Deobstruents* are such *Medicines* as are peculiarly adapted by their Weight to open the Obstructions of the Fluids in the Capillaries, by increasing their *Momentum*, and causing them to strike with greater Force against the secretory Outlet. (14.) *Diuretics* are those Medicines whose remarkable Property it is to increase the Discharge by *Urine*, by removing Obstructions of the *Urinary* Passages from what Cause soever. And this they do, either by softening and lubricating the Parts; or by attenuating and rarifying the viscous Humours; or, lastly, by altering the *Crafts* of the Fluids, so as to fit those to pass which could not get through before. (15.) *Diaphoretics* are those which procure *Sweat*, by dividing and attenuating the Humours so far, that they become fine enough to escape through the smallest Passages, as those of the *cutaneous Glands*; or else by their contracting and squeezing the Solids, which force out of the Extremities what lay in Readiness before to go off. (16.) *Emetics* are all those Medicines, which by their *Stimulus* do so vellicate and irritate the Fibres of the *Stomach*, as to make the Coats contract, and forcibly throw up the Contents by Vomiting. (17.) *Cathartics* are Medicines which purge by Stool; they have the same Qualities as the *Emetics*, but in a lesser Degree, and therefore pass into the Intestines before they can produce their Effects. The milder Purgers are call'd *Laxatives*, but the rougher ones *Drastics*. (18.) *Sternutatories* are such Medicines as by their *Stimulus* vellicate the Membranes of the Nostrils, excite *Sneezing*, and by a violent Concussion of the Head and Body, produce an Evacuation of troublesome Humours by the Glands of the Mouth and Nose. (19.) *Narcotics*, *Hypnotics*, or *Opiates*, are all Names for those Things which have the Property of causing *Sleep*, which they effect in a Manner not easy to be explain'd or accounted for. (20.) *Refrigerants*, or *Coolers*, are such as produce an agreeable Sense of Cold, and mitigate the Heat and Drought of the *Mouth*, *Stomach*, and other of the *Primæ Viæ*.

Deobstruents.

Diuretics.

Diaphoretics.

Emetics.

Cathartics.

Sternutatories.

Narcotics.

Refrigerants.

An Alphabetical Catalogue of Diseases.

THERE are other Titles of Medicinal Classes of Remedies, but not worth rehearsing; these here mentioned being the most common and considerable: I shall now conclude this Chapter by an *Alphabetical Catalogue* of those *Diseases* or *Illnesses*, which generally vex and molest the whole and every Part of our crazy Constitution.

Abortion, an immature Birth, or before the *Embryo* is compleatly form'd and fitted for Exclusion.

Acrasy, a Debility from the lost Tone of the Parts.

Ague, an intermittent Fever, attended with alternate Fits of Heat and Cold; proceeding from an increased Velocity and Viscidity of the Blood.

Anthony's Fire. See *Erysipelas*.

Apoplexy is a sudden Deprivation of all internal and external Sensation, and of all Motion except of the Heart and Thorax; caused by an Obstruction of the Animal Spirits in the Nerves.

Asthma is a frequent, difficult, and short Respiration, join'd with a hissing Sound, and a Cough; proceeding from an ill State of the Lungs, wherein they cannot exert themselves freely, in Dilatation and Contraction.

Atrophy, an insensible Waste or Decay of the animal Body for Want of Nourishment.

Barrenness. See *Sterility*.

Bloody-Flux. See *Dysentery*.

Cachexy, a bad Habit of Body, when the *Viscera* are unsound, and the Juices distemper'd.

Cacochymy, a vitiated State of the Juices.

Calenture, a Sea-Disease, wherein the Sea appears as pleasant as green Fields.

Cardialgia, the Heart-Burn, proceeding from the Acrimony of some explosive Matter in the Stomach.

Catarrh. See *Defluxion*.

Chlorosis, the Green-Sickness, which arises from a cold heavy Blood, and to be cured chiefly by Exercise.

Cholic, an acute and painful Disorder of the Bowels, arising either from the Acrimony of too much Bile; or from *Flatus's*, or Wind pent up; or from some Disorders of the Womb; or, lastly, from some Disorders of the Nervous Fluid in the Coats of the Guts themselves; and accordingly it is said to be *Bilious*, *Flatulent*, *Hysteric*, and *Nervous*.

Consumption,

Consumption, a Decay of the Body by a Waste of the Solids or Muscular Flesh, and is of several Kinds.

Convulsions consist in an involuntary Contraction and Contortion of the Fibres and Muscles, whereby the Body and Limbs are preternaturally distorted.

Cough is the Effect of, a convulsive Motion of the Muscles, and Parts of the *Abdomen*, *Thorax*, and *Throat*.

Cramp, a convulsive Contraction of the Muscles of any Part.

Crapula, a Surfeit proceeding from too much Eating and Drinking; attended with Heaviness and Disorders of the Head.

Defluxion, a flowing of sharp Serum or Rheum from the Glands of the Head and Throat, occasion'd by a Cold, and causing Irritations, Coughs, &c.

Delirium, Lightheadedness, a disturb'd Sensation arising from a violent Disorder of the Brain and Spirits.

Diabetes, a profuse or too great Discharge of Urine.

Diarrhœa, a Looseness, or Flux of the Belly.

Dropsy is a preternatural Secretion of the Serum or Water, which lodging in the Constitution, distends and weakens the Parts; and proceeds from too lax a Tone of the Solids.

Dysentery, a Flux of ill Humours by Stool, and sometimes attended with Blood.

Dyspepsy, a bad Digestion in the Stomach.

Dysury, a Difficulty of making Urine.

Elephantiasis. See *Leprosy*.

Epilepsy is a convulsive Motion of the whole Body, or some of its Parts, with a Loss of Sense.

Epiphora, a Defluxion of Humours on the Eyes.

Erysipelas, a cutaneous Inflammation, attended with great Pain and Swelling.

Fever is an increased Velocity of the Blood; the almost infinite Variety of its Causes occasions almost as great a Diversity of its Appearances and Effects; it is always attended with Heat, Sickness, Debility, acute Pains, and sometimes with Deliriums and Madness. There are several kinds, as *Inflammatory*, *Intermittent*, *Hætic*, *Nervous*, &c.

Flux. See *Diarrhœa*.

Freckles. See *Lentigo*.

F f

Glancoma,

Glaucoma, a Change of the natural Colour of the Eye without Detriment to the Sight.

Genorrhœa, an involuntary flowing of the Seed, from the ulcerated Glands of the *Prostatæ*, and *Lacunæ*.

Gout, a painful Distemper, consisting of hard Concretions of Matter in the extreme Parts of the Body.

Gravel, a Disorder in the Kidneys or Bladder, wherein Stony Concretions, like Pebbles, are voided by Urine.

Green-Sickness. See *Chlorosis*.

Gripes, the same as *Cholic Pains*.

Gutta Serena, a Dimness of Sight, or confused Vision of *Flies*, *Dust*, &c. yet no Defect of the Eye is to be seen.

Hæmorrhage is a Flux or Bursting out of Blood from any Part, proceeding from a *Plethora*.

Hæmorrhoids is a Bleeding or painful Swelling of the *Hæmorrhoidal* Veins about the Fundament.

Heart-Burn. See *Cardialgia*.

Hætic, a slow continual Fever that ends in a Consumption.

Head-Ache. See *Pain*.

Horror, such Shuddering and Quivering as precedes Fits of an Ague.

Hydrophoby, a Fear of Water, a Symptom that follows the Bite of a Mad Dog.

Hypo, any Disorder of the Liver and Spleen; and Womb in Women. See *Malancholy* and *Vapours*.

Hysteric Passion, Fits of the Mother, or Disorders of the Womb, which frequently bring the whole nervous System into Disorder also.

Jaundice, a Distemper from Obstructions of the Glands of the Liver, which prevent a due Secretion of the Gall, which therefore being carried through the Habit of the Body, tinges the Extremities with Yellow.

Iliac Passion, a kind of nervous *Cholic*, wherein the Colon is twisted, or one Part enters the Cavity of the other.

Inappetency, a Loss or Want of Appetite.

Impotency, the Inability of Males to impregnate the Females, from a Weakness of the Genital Parts.

Incubus,

Incubus, the Night-Mare or *Asthma*, proceeding from some Obstruction of the Blood-Vessels in the *Thorax*, or of Respiration.

Inflammation, a Swelling with great Heat and Pain.

Intermittent Fevers. See *Ague*.

Ischias, the Hip-Gout.

Ischury, a Stoppage of Urine, by Stone, Gravel, &c.

Itch, a Cutaneous Distemper, proceeding from sharp Humours which corrode the Miliary Glands.

Lentigo, a freckly or scurfy Eruption upon the Skin.

Leprosy, a dry, white, scabby Eruption, in the Manner of Scales on the Skin.

Lethargy, a Distemper attended with the Loss of the rational, at least the retentive Faculties of the Mind, and an Inaptitude to Motion.

Leucorrhœa, the *Fluor albus*, or Whites in Women.

Lientery, a Looseness wherein the Aliments are voided with little or no Alteration.

Lypothymy, a Fainting, or Swooning away.

Lithiasis, the Stone or Gravel.

Lues Venerea, the Pox, or Foul Disease.

Lumbago, troublesome Pains about the Loins.

Lunacy, a kind of Frenzy, or Disorder of Mind.

Madness is a Delirium without a Fever, or State of Mind wherein the *Ideas* are receiv'd without any natural Order or Coherence, and produce uncommon Effects.

Malacia, a deprav'd Appetite.

Mania. See *Madness*.

Melancholy, a dull and gloomy Disposition arising from too heavy and viscid a Blood, and Paucity of Animal Spirits.

Measles. See *Small-Pox*.

Miasm, a contagious Scent from Diseases, &c.

Miserere Mei, sharp Cholicky Pains, so call'd.

Morpheus, the Freckles.

Myopy, Purblindness.

Nausea, a Loathing of Food, &c.

Nebulæ, Films or little Clouds in the Eye.

Nephritis, the Stone in the Kidneys.

Noli-me-tangere, a very sore tetters Eruption.

Obstructions, Stoppages in the Vessels of any sort.

Ophthalmy, an Inflammation of the *Tunica Adnata* of the Eye, attended with Redness, Heat, Pain, Swelling, arising from a Stagnation of the Blood in the capillary Arteries.

Orthopnœa, a great Difficulty of Breathing.

Pain is an uneasy Sensation arising from a Solution of the Continuity of the Parts of Nerves and Fibres, which is proper to their natural and sound State.

Palpitation, a Beating, a Panting of the Heart.

Palsy is a Privation of Motion, or Sense of Feeling, or both, proceeding from some Cause below the Cerebellum, join'd with a Coldness, Softness, Flaccidity, and at last a Wasting of the Parts.

Peripneumony, an Inflammation of some Parts of the *Thorax*, which occasions a great Pain, and Shortness of Breath, and generally goes off by Expectoration, &c.

Pernio, a Kibe or Chilblane.

Pestis, the Plague or Pestilence, which see.

Phrenitis, the Phrensy, which is a Species of Madness.

Phthisis, the *Phthisic*, a Waste or Consumption of the Body, very various both as to its Causes and Kinds.

Piles. See *Hæmorrhoids*.

Plague is the most malignant, acute, and mortal of all the *Nervous Fevers*; and is communicated by Contagion.

Plethora is when the Humours are secreted in too great an Abundance, or beyond what a healthy State requires.

Pleurisy, an Inflammation of the *Pleura*, proceeding from a Stagnation of Blood, and producing very intense Pain.

Poison, a most virulent, corrosive, and destructive Quality in several Things, causing great Swelling, Pain, and Death.

Pox, a Disease, deservedly, tho' too well known.

Quartan, a third Day's Ague.

Quinsey, an Inflammation of the Jaws and Throat.

Rheumatism, a Distemper of the common Membrane of the Muscles, which makes it rigid, and unfit for Motion, without great Pain.

Rickets, a Distemper in Children proceeding from an unequal Distribution of Nourishment; which makes

makes the Joints grow knotty, and the Limbs uneven.

Scab. See *Itch*.

Scrophula, the King's Evil; and proceeds from an Obstruction and Erosion of the Glands.

Scurvy, a Disease proceeding from a Blood unequally fluid, and somewhat corrosive.

Shingles, a kind of corrosive, cutaneous Inflammation.

Small-Pox, a contagious Distemper breaking out on the Skin in numerous Pustles, which ripen into a Scab.

Squinacy, the same as *Quinsy*.

Sterility, Barrenness, which arises from various Causes.

Stitches, acute Pains in the Side.

Stone, a Concretion of the harder Parts of the Urine in the Bladder.

Strangury, a Difficulty of Urine attended with a continual Dripping.

Struma, an Induration of the Glands; the King's-Evil.

Surfeit. See *Crapula*.

Syncope, a sudden Fainting or Swooning away.

Tubes, a Consumption, or Decay of Muscular Flesh.

Tenesmus, a continual Inclination to go to Stool, but ineffectual.

Tentigo, a continued painful Erection of the Yard.

Tertian, an Ague intermitting but one Day.

Tremor, an involuntary trembling of the Nerves.

Tumor, any kind of Swelling.

Tympany, the *Dropsy* which swells the *Abdomen* like a Drum.

Vapours, the Disorders of the *Viscera* of the *Hypochondria*.

Vertigo, Giddiness; a Disorder of the Brain, wherein Things at rest appear to move round.

Ulcer, any running Sore.

Vomiting, a casting up the Contents of the Stomach, from an Irritation or Vellication of its Coats.

Whites. See *Gonorrhœa*.

Xerophthalmia, a Distemper otherwise call'd the dry Lippitude, where the Eye-Lids turn out red and dry.

SURGERY
defined.

CHIRURGERY, or (as it is commonly call'd) Surgery, is the Art of the *Chirurgion* or *Surgeon*; and is that Branch of the Art of Healing, which is perform'd by *Manual Operation*, and with proper *Instruments*.

A Surgeon,
his Qualifica-
tions.

A **SURGEON** therefore is one who has a tolerable Skill in *Anatomy*, *Medicine*, and other Parts of Learning; a Man of good *Experience*, great *Dexterity*, an unshaken *Courage*, and steady *Hand*; a clear *Sight*, quick *Thought*, and of an ingenuous and honest *Mind*.

In *Surgery* we consider (1.) The Subject of the Art, *Diseases*. (2.) The *Manner of Cure*. (3.) The Medicines appropriated thereto. (4.) The *Manual Operations*. (5.) The Instruments used therein.

Divers Kinds
of Disorders.

THOSE Diseases which afflict the human Body, and demand the Care and Assistance of the *Surgeon*, are of the following Kinds. (1.) *Tumours* or Swellings. (2.) *Ulcers*, or running Sores. (3.) *Fistula's*. (4.) *Inflammations*, or *Strumous Disorders*. (5.) *Wounds*. (6.) *Gangrena's*, or Mortification. (7.) *Dislocations*. (8.) *Fractures*, or broken Bones.

Tumours.
General
Causes.
Affluxion.
Congestion.

TUMOURS are generally occasion'd by a preternatural Quantity of Humours on the Part, either by a sudden and violent Course, call'd *Affluxion*; or else by little and little, call'd *Congestion*. But those Tumours which consist of a Collection of *Pus* or *Matter*, are call'd *Apostems* or *Impostumes*; and any Tumour is call'd an *Abscess*.

Particular
Causes.

THE Causes of Tumours are various; as a contagious Air, hard Bandage, Blistering, Wounds and Bruises, ill Humours, Flatuosities, Inflammation, &c.

The Kinds of
Tumours.
Phlegmonic.

Tumours may be distributed into the following Kinds, (1.) *Phlegmonic*, or Inflammatory; as the *Ophthalmia* in the Eye; *Angina* or Quinsy in the Throat; the *Pleurisy* in the *Pleura*, or Side of the Breast; a *Peripneumony* in the Lungs; a *Bubo* in the Groins, &c. (2.) *Odematous*, or cold aqueous Tumours; of which some have their Matter contain'd in a *Cystis* or Bag; as the *Atheroma*, *Steatoma*, and *Meliceris*: Others not, as *Psyracium*, *Ficus*, *Talpa*, *Nata*, *Lupia*, *Ganglion*, &c. (3.) *Scirrhus Tumours*, which

Odematous.

Scirrhus:

which consist in an Induration of the Glands, from gritty, obstructed Matter; as happens to the Liver in a *Faundice*, or the like. Such an *Induration* is call'd indifferently by the Names *Scirrhus*, *Scirrhomia*, and *Scirrhusis*. (4.) *Aqueous Tumours*, such as proceed from a preternatural Redundancy, or an Extravasation of the *Serum* of the Blood in the outer Parts of the Body; which in the Head is call'd *Hydrocephalus*; in the Belly, *Ascites*; in the Scrotum, *Hydrocele*, or *Hernia aquosa*. (5.) *Strumous Swellings*, which proceed from an Obstruction and Erosion of the Glands, the Matter whereof is contain'd in a *Cystis*; this Sort of *Tumour* is various in its Nature, and call'd the *Struma*, *Scrophula*, or *King's-Evil*, from an idle Conceit of its being curable by the Royal Touch.

Aqueous.

Strumous or Scrophulous.

ULCERS are the next Class of Diseases above recited, and are defined to be a preternatural Discharge of Matter of various Kinds, from a Solution of Continuity or Texture of the Part, with Loss of Substance. This Solution proceeds from some distemper'd Humours, eroding the Part by their virulent Particles, or from *Wounds*, &c. which in time degenerate to *Ulcers*.

Ulcers.

OF *Ulcers*, the more simple affect the Skin and Cuticle only, but others reach deep into the Flesh. Of *ulcerous Disorders* are reckon'd the following. (1.) The *Herpes exedens*, which riseth on the Skin in little *Tubercles*, and with *ulcerous Orifices*, containing a very corrosive and penetrating Matter. (2.) *Phagedæna*, which lies deep, with tumified Lips, and erodes the Part by corrosive Humours. (3.) *Nome*, a feeding or consuming Ulcer, which brings on a Putrefaction of the Part. (4.) *Cancer* or *Carcinoma*, a direful Sort of Ulcer, too well known. (5.) *Lupus*, or Wolf, a devouring Ulcer of the *Phagedænic* Kind, in the Thigh or Leg. (6.) *Noli-me-tangere*, a sore scabby Ulcer, difficult to cure. (7.) *Achor*, a scabby ulcerous Tumour, in the Skin of the Head. (8.) *Favus*, an Ulcer with Matter resembling Honey. (9.) *Ozæna*, a malignant Ulcer in the Nostrils, eroding the Parts, and very difficult of Cure.

Several Sorts.

Herpes.

Phagedæna.

Nome.

Cancer.

Lupus.

Noli-me-tangere.

Achor.

Favus.

Ozæna.

FISTULAS are but old *Ulcers*, with callous Lips, penetrating with sinuous Cavities even to the Bones, which are render'd foul and sanious by the fetid virulent Matter of the *Fistula*: For a *Fistula* lies

Fistula's

lies deep, and ouzes out its Matter thro' long, narrow, winding Passages like *Pipes*, whence their Name. So when the Tumour in the great Corner of the Eye, call'd *Anchylops*, or *Ægylops*, is neglected, it produces the *Fistula Lachrymalis*; from a *Phlegmon* in the Breast ill cured comes the *Fistula Thoracis*; and an Inflammation in the Fundament often degenerates to a *Fistula in Ano*.

Inflammations.

INFLAMMATIONS and *Strumous* Disorders proceed from an Obstruction of the Blood-Vessels, whereby the Blood is crowded in a greater Quantity upon the Part, and so receives a greater Colour and Heat than is usual, and by eroding the Glands, produces all Kinds of *Strumous* or *Scrophulous Indurations* and *Distempers* of those Parts, most of which have been already mention'd.

Wounds.

WOUNDS make the fifth Class of human Disasters, which come under the Surgeon's Care. A Wound is defined to be a *Solution of Continuity in any Part of the Body*. Under this Denomination are reckon'd (1.) *Cuts* and *Incisions*. (2.) *Punctures* by sharp-pointed Instruments. (3.) *Contusions* or *Bruises* by any external violent Force impress'd. (4.) All Gun-Shot Wounds. (5.) All *Sprains* or *Strains* occasion'd by a forcible and violent Tension or Stretching of the Part beyond its natural Tone or Tenour, attended with Pain, Debility, and Inflammation.

Gangrenes.

GANGRENES and *Mortifications* make the next Part of the *Tragedy* of human Life. A *Mortification* is when the natural Heat of a Limb is in Part extinguish'd, and therefore the Limb in Part render'd insensible, discolour'd, and cold. But when the natural Heat is quite extinct, &c. it is call'd a *Sphacelus*, or *Sphacelation*; in this Case the natural Juices having lost their proper Motions, fall into a fermentative one, and thus corrupt and destroy the Texture, and vital State, and Functions of the Part affected; which then is said to *gangrene*, *mortify*, or be *sphacelated*.

Dislocations.

DISLOCATIONS are Disorders respecting the Bones, and are sometimes call'd *Luxations*, and are when any Bone becomes disjointed, or put out of its natural Place and Situation; which is caused by various Accidents, and may happen to almost all the Articulations of the Bones.

FRAC.

FRACTURES of the Bones make the last Division of *Chirurgic Disorders*. The *Fracture* of a Bone is a Solution of Continuity, or of the Texture and Cohesion of its Substance in any Part. This may be *transversely*, across the Bone; or *longitudinally*, along the Bone; or *obliquely*, between both. *Fractures* are *Simple*, or such as happen without a Wound; or else *Compound*, as when they are attended with Wounds; and these are most dangerous, and the more so as they are in a larger Bone, and nearer the Joint.

IN the *Curative Part of Surgery*, the *Intentions* and *Manner of Cure* are various, according to the Nature of the Distemper, and the Circumstances thereof. However, the principal *Intentions* are as follow. (1.) *Derivation*, or drawing the Humours away, (which threaten any noble Part,) to the Parts adjacent, or on the same Side. (2.) *Revulsion*, which is a Drawing away the Humours to the opposite Side or Part. (3.) *Discussion*, which is an *Evacuation* of thin peccant Matter by Perspiration, or by repelling the Humours back into the Mass of Blood. (4.) *Resolution*, or changing the Humours from peccant to a salutary State. (5.) *Suppuration* and *Maturation* signify the *Ripening* or bringing the Matter of the Tumour into *Pus*, or laudable Matter. (6.) *Digestion*, which is the promoting a Discharge of suppurated Matter by proper Medicines. (7.) *Mundification*, which is a deterging or cleansing the Tumour after the Matter is discharged, and fitting it for (8.) *Incar-nation*, or healing and filling it up with new Flesh. (9.) *Cicatrization*, which is the inducing a Skin upon the Sore now cured, so as to leave as small a *Cicatrix*, or Scar, as possible. These Intentions principally regard *Tumours*, *Ulcers*, *Wounds*, &c. in the *Flesh*; besides which there are many which respect the *Bones*, and therefore will be next taken notice of among the *Manual Operations*. And indeed what is perform'd by the Hand makes the principal Part of the *Surgeon's Art*, and gives Denomination to the whole. The chief *Operations* perform'd by the *Surgeon's Hand* are as follow. (1.) *Amputation*, which is the Cutting off any Limb, or Part from the Body. (2.) *Arteriotomy*, letting Blood by cutting an *Artery*. (3.) *Phlebotomy*, the same by cutting a *Vein*.

Vein. (4.) *Bronchotomy*, an Incision made in the Wind-Pipe, to prevent Suffocation in a Quinsey. (5.) *Cæsarius*, a Cutting the Child out of the Womb. (6.) *Castration*, a Cutting out the Testicles. (7.) *Cauterising*, a Burning or Scarring any quick Part with *Cauteries*, to prevent Mortification, &c. (8.) *Cupping*, a Raising the Cuticle from the Skin, in order for *Scarification*. (9.) *Cystotomy*, a Cutting or Opening the *Bladder*, to extract the Stone. (10.) *Fenticulation*, a Cutting or Making *Issues*, *Seatons*, &c. (11.) *Lancing*, making an Incision in any Part with a *Lancet*. (12.) *Lithotomy*, a Cutting for the Stone. (13.) *Scarification*, a Cutting of blister'd Skin with a *Lancet*. (14.) *Suture*, a Sewing the Lips of Wounds, &c. (15.) *Tapping*, a Perforating the Skin of the *Abdomen*, for discharging watery Humours, in the *Dropsy*, &c. (16.) *Trepanning*, which is the Opening a Fracture in the Skull by an artificial Perforation. (17.) *Reduction* is the replacing of dislocated, and setting of fractur'd Bones by means of proper *Ligatures*, *Bandages*, and other external Applications.

*The Medicines
used in Sur-
gery.*

THE *Surgeon*, as well as the *Physician*, is obliged to make use of *Medicines* to answer most of his Intentions, and such, in this Case, are call'd *Topical Applications*; these consist chiefly of *Plaisters*, *Cerates*, *Unguents*, *Oils*, *Infusions*, &c. and are (according to their Quality) distributed into the following Kinds. (1.) *Abstergents*, or *Detergents*, which cleanse the Wound, and dispose it for Healing. (2.) *Anaplerotics*, *Sarcotics*, and *Incarnatives*, all which signify such Medicines as heal and fill up the Wound with *Flesh*. (3.) *Anodynes*, such as assuage Pain. (4.) *Aperients*, the same as *Detergents* nearly. (5.) *Balsamics*, oily healing Remedies. (6.) *Caustics*, or *Cauteries*, are such as sear or burn the *Flesh* to an *Eschar*. (7.) *Desiccatives*, which dry up and skin over Wounds, &c. (8.) *Digestives*, such as promote the Digestion of Matter in Tumours. (9.) *Epulotics*, which cicatrize and skin over Wounds. (10.) *Escharotics*, the same as *Caustics*. (11.) *Lithontriptics*, which break the Stone in the *Bladder*. (12.) *Narcotics*, those which stun the Sense of Pain. (13.) *Palliatives*, such as are used to palliate incurable Wounds, &c. (14.) *Phagedæmics*, which eat away the proud or fungous

fungous Flesh. (15.) *Repellents*, such as disperse the Matter of Tumours, and assuage Swelling. (16.) *Resolvents*, which open, loosen, or promote the Resolution of Matter. (17.) *Ripeners*, such which ripen, draw, and fit Matter for a Discharge. (18.) *Sclerotics*, such as harden and consolidate the Flesh of new cur'd Wounds. (19.) *Styptics*, such as are very binding and astringent, sufficient to stop *Hæmorrhages*, &c. (20.) *Suppuratives*, which promote the Suppuration of the Matter of Tumours. (21.) *Topics*, all external Applications of Medicines. (22.) *Traumatic*s, or *Vulneraries*, all Medicines good for Wounds. (23.) *Vesicatories*, such Things as occasion Blisters to rise on the Skin. (24.) *Xerantics*, the same as *Desiccatives*, or drying Medicines.

FOR *Manual Operations* the Surgeon is provided with a terrible Apparatus of the Instruments of Fate and Necessity: The chief of which I shall just name as follows. (1.) *Acantabolus*, to draw out splinter'd Bones, Hairs, &c. from Wounds. (2.) *Amma*, a Kind of Girdle or Truss. (3.) *Bathrum*, contrived for the Ease and Security of the Luxated Joints after Reduction. (4.) *Catheter*, an hollow Instrument to put up the *Penis* into the Bladder, to assist in making Urine, in case of the Stone and Gravel. (5.) *Actual Cautery*, a red hot Iron for *Searing* any Part. (6.) *Potential Cautery*, any *caustic* Medicine. (7.) *Glyster-Pipe*, well known. (8.) *Cucurbitula*, a Cupping-Glass. (9.) *Cycliscus*, in the Form of an Half-Moon, to scrape away Rottenness withal. (10.) *Dentagra*, to draw Teeth withal. (11.) *Dentiscalpe*, to cleanse the Teeth with. (12.) *Forceps*, like a Pair of Tongs, to extract any thing out of Wounds, &c. (13.) *Forfex*, to extract or draw Teeth with. (14.) *Lancet*, an Instrument well known. (15.) *Modiolus*, that Part of the *Trepan* which cuts the Bone circularly. (16.) *Perizonia*, Trusses to keep up Ruptures. (17.) *Probe*, a small long Instrument to search the Wounds with. (18.) *Retinaculum*, us'd in *Castration*, cutting *Hernia's*, &c. (19.) *Rostrum*, crooked Scissars, like a Bird's Bill. (20.) *Sanguisuge*, a Leach. (21.) *Scala* or *Ladder*, an Instrument for resting and defending dislocated and broken Limbs. (22.) *Scarificatory*, used to make *Scarification*, being a Number of sharp Points, set on a Plane, which are all struck into the

Instruments used in the Manual Operations of Surgery.

Part

Part at once. (23.) *Speculum*, an Instrument to open and dilate any Passage or Orifice, in order to inspect the same. (24.) *Spatula*, a little Instrument for spreading Plaisters, &c. well known. (25.) *Syringe*, used for injecting medicated Liquors up into any Part. (26.) *Tenaculum*, somewhat like the *Forceps*. (27.) *Terebra*, *Terebellum*, or *Trepan*, an Instrument used for cutting away the fractur'd Parts of a Bone, particularly of the Scull. (28.) *Vectis*, used as a Supporter or Prop in reducing dislocated, or setting fractur'd Bones.

THERE are divers other *Chirurgical Instruments*, of which I know not the Names, besides the divers Sorts of *Knives*, *Saws*, *Scissars*, &c. in common Use, which are too well known, to need Description,



Of POLITY and OECONOMICS.

MAN only, of all other Creatures, is endow'd with Faculties that render him a *Man a Sociable Creature.* *Social Being*, or capable of *Converse, Commerce, Government, Law*, the Rules and Notions of *Right and Wrong*, and the Sanctions of *Rewards and Punishments*. Accordingly Mankind have univerfally, from the first Ages of the World, used to associate themselves together, to form *Companies*, and to unite in *Societies*.

SOCIETY therefore is a *Property of Human Nature*, as consisting of a certain Number of Persons who all agree and combine mutually to conserve, defend, promote, and enjoy one common Interest, according to certain Terms, Orders and Regulations first stipulated and agreed upon mutually by the whole *Society, what.* *Society.*

ACCORDING to this Definition of a *Society*, 'tis plain they may be infinitely various, as they consist of various Numbers of Members, pursue different Interests and Views, and are founded on and regulated by divers *Institutions and Rules*. I shall here only take Notice of those *Societies* which pass under the three following remarkable Denominations, viz. (1.) A *Family*. (2.) A *City*; and (3.) A *Republic, Commonwealth, or Nation*. *The several Kinds.*

A **FAMILY** is an *Household* of Persons, or those *A Family.* who live together in *one House*; and are generally of three Sorts of Personages; as, (1.) *Parents*, or those who beget and bear Children, with us call'd *Fathers and Mothers*. These are said to be the Stock and Heads of Families. (2.) *Children*, which are begotten and born of the Parents; and as they are *Male* or *Female*, are call'd *Sons and Daughters*. (3.) *Servants*, which are those who *serve* or do the *Work* of the *Family*, on Conditions of Advantage or Profit, call'd *Wages* or *Hire*. By the Word *Family* is sometimes

times meant the *Genealogy, Pedigree, Lineage*, or *Déscént* of a particular Family from the first of the Race; and in this Sense they are call'd *Kindreds*; but this is foreign to our Purpose here, and therefore shall pass it by.

A City.

A *CITY* is a Society of People incorporated into a Body; enjoying certain peculiar Privileges, Liberties, and Immunities, living in a large wall'd Town, or the Liberties thereof, where there is a Cathedral Church, and a Bishop's See; and are all govern'd by the same Laws. If the Town be not wall'd about, nor hath a Cathedral or Bishop's See, it is call'd a *Town Corporate*, or a *Corporation*, but not a *City*, of which there are abundance in England. A *City* therefore consists of divers *Families*, and hath the same Relation thereto as a *Whole* to its *Parts*.

*A Republic
or Nation.*

A *REPUBLIC, Commonwealth, or Nation*, is a *Multitude* or *Society* of People inhabiting the same Land, having the same Name, speaking the same Language, and enjoying the same Laws, Religion and Government: Though the Words *Republic* and *Commonwealth* respect the *Form* of Government rather than the *Subject*, or *People*. As *Cities* and *Towns* consist of *Families* or *Houses*, so a *Nation* is made up of *Cities* and *Towns*, as also of many *Villages* and particular *Houses* situated over the Face of all the open Country of that *Nation*.

*The Requisites
to constitute a
Society.*

ALL those *Societies*, as has been said, are *Bodies Politic*, or subject to certain Orders, Rules, Laws, and Government; and in order to constitute such a *Society* or *Body Politic*, the following Things are necessary. (1.) Such a Community or Society must consist of Men, or rational, not irrational Beings. (2.) There must be a *Plurality* or *Multitude* of them, viz. of *Persons, Houses, or Cities*. (3.) They must associate and unite together; for they make up this Body not severally, but as join'd together in one. (4.) They must enjoy a *Community* or *Participation* of many particular Things, and one general Interest, common to the Whole. (5.) It must be instituted by the general Consent of a free People, and therefore it is voluntary. (6.) It must be just and reasonable; for there can be no honourable and true *Society* or *Commonwealth* of Men bent on wicked Purposes; as *Thieves, Pirates, Conspirators, Murderers, seditious Persons,*

Persons, &c. for they are supposed to be bound to observe certain Rules of eternal Justice and Reason, and therefore the Things wherein they unite, and the Manner of their uniting must be both just; and the more they are so, the more excellent and perfect the *Commonwealth* and *Ordination* thereof will be.

GOVERNMENT, or that Form and Order of Rules and Laws by which the *Affairs* of *Societies* are administered, regulated, and directed, is various, according to the Nature of the Society; the Relation of the Members to each other, the Person or Persons who administer the Republic, and the Manner of the Institution. Government, what.

A HOUSE or FAMILY being in Nature prior to all other *Societies*, I shall begin with the Government thereof first: This in regard of the *House* the *Greeks* call'd *Oeconomy*, and the Arts which deliver'd Rules thereof, they call'd *Oeconomics*; but in regard of the Person in whom the Power of ruling and governing the Family was lodg'd, they call'd it *Patriarchy*, and the manner of it *Patriarchal*; because the *Father* of the *Family* being the principal Person therein, administered and governed the Affairs of the House; as the Law and Dictates of Nature and Reason directed. Oeconomy, what.

OECONOMICS therefore is that Part of *Moral Oeconomics*, *Prudence* which gives Rules and Directions for the due and well ordering and governing a *Family* or *Household* of People, in the Administration of all the Affairs and Business pertaining thereto. And as in a *Family* it considers a threefold State of Relation, viz. that of *Husband* and *Wife*, *Parents* and *Children*, *Master* and *Servants*, so it lays down and supplies such *Laws* and *Rules* as direct the *Conduet*, and shew the *Duties* incumbent on each Person reciprocally in his respective State and Relation. what.

THE first of these three *relative States* is call'd the *Conjugal* or *Matrimonial* State; because the Relation of a *Husband* and *Wife* commences from their mutual *Contract*, *Covenant*, and *Agreement* to associate, unite, cohabit, and hold a common Participation of the Fortune of Life so long as they both shall live; which public and solemn Action is call'd *Matrimony*. Conjugal State.

THE *Laws* which respect the *Husband*, and the *Duties* and *Offices* enjoind to be perform'd in regard *The Duties of an Husband.*
of

of the Wife, are as follow : (1.) That he *love* her, and *delight* in her *Company* and *Society* more than in any other Woman's. (2.) That he nourish and sustain her with the best their Fortune affords for the Sustainance of Life and Health. (3.) That he duly perform the Duties of the Marriage Bed, or render to the Wife due Benevolence ; and that ever according to the Dictates of Reason and Prudence. (4.) That he keep his plighted Faith in allowing her the *sole Property* and *Use* of his Body, and abstaining religiously from all adulterous Commerce with any other of her Sex. (5.) That he teach and instruct her in the Duties of Religion, and the more difficult Affairs of Life, when she appears to need it. (6.) That, lastly, he rule and govern her by the Laws of Prudence and Reason, and in such a manner, that more of Love, Humanity and Kindness may appear, than of Power and sovereign Authority. In short, every Act of the *Husband* should be such as might tend to demonstrate, that he is not willing to shew himself so much her *ruling Lord*, as her *loving Husband* ; and more desirous of her Love, Affection and Esteem, than her Fear and Submission.

*The Duties of
a Wife.*

THE *Duties* and *Offices* of a Wife towards her *Husband* are, for the most part, the same as those just enumerated of the *Husband* towards the *Wife* ; but particularly, that she love, honour, and assist him, not only in bearing Children and educating them, but in taking on her a Part of the Administration of *domestic* Affairs ; and moreover, that she be modest, chaste, and submissive in all Cases where the superior Wisdom and Judgment of the *Husband* shall require it. And on the side both of Man and Wife, the Nature of such a strict Conjunction requires that they be mutually Partakers of each other's Fortune, whether prosperous or adverse, and to comfort each other in their Calamity ; and that they should both so temperate their Behaviour and Manners with Prudence and Wisdom, as should best conduce to Peace, Harmony, and mutual Forbearance ; in respect of which however it is adjudged most becoming the *Wife* to yield.

*The Power of
Parents.*

WITH regard to the second Relation of *Parents* to *Children*, 'tis evident they, as being their Offspring, are the most immediate Subject of *Patriarchal Power*, accord-

according to the most antient and holy Institution and Form of Government; by which they are obliged to honour and obey their *Father* and *Mother*, and to observe and perform their lawful Commands. And since both *Father* and *Mother* concur to the Generation of Children, they have each a Property in and Power over them. But this Power extends not to Life and Death, though in Cases ever so criminal, but only to proper Correction and Castigation; for when Children are grown adult, and pertinaciously contemn the paternal Care, Power, and Government, they are to be deliver'd up to the superior Power of the *City*, or *Nation*, if any such be extant; if not, they are to be expell'd and abdicated their Father's House.

THE *Duties* of Parents concerning their Children are principally such as these, *viz.* (1.) That they feed, cloath and nourish them while young and helpless, in a proper Manner. (2.) That they take Care to educate them in all useful Knowledge and Learning. (3.) That they bring them up in the Nurture and Admonition of the Lord, that is, in the Christian Religion. (4.) That they imbue their Minds with the Principles of Virtue and Morality while young and flexible, and inure them gradually to the Practice thereof. (5.) That they infuse and implant in their Minds an early Sense of Moral Evil, and bring them to an habitual Abhorrence of all Vices and Immoralities. (6.) That they give them suitable Reproof, Correction, and Restraint, for and in Consideration of all vicious, ungodly and vain Practices, and by all means possible cause them to forsake the same. (7.) That they teach and instruct, or cause them to learn, some honest Art, Faculty, or Employment for their future Dependence and Support of Life. (8.) That they give them wholesome and prudent Advice in all difficult and momentous Affairs, as in chusing an Husband or Wife, Profession of Religion, Bargaining, &c. though in these Cases the Parent has no Power or Right to oblige the Child to fulfil his Will or Desire. (9.) Lastly, that they take all proper Care to augment, improve, and promote their Children's Fortune and Prosperity in every respect.

*The Duties of
Parents.*

THE *Duties* of Children towards their Parents are, (1.) That they love, honour, and obey them in all their civil and reasonable Commands. (2.) That they serve them with all Readiness and Submission in the Business

*The Duties of
Children.*

of their Calling. (3.) To use all *reverent, submissive, dutiful Language* to them on all Occasions; and to refrain Contradiction, and Obloquy of every sort. (4.) To deport themselves always with a *respectful, filial, and dutiful Behaviour*, such as may express a Sense of the *Obligation* they are under to their *Parents*, as the immediate *Authors* of their Beings, and all proper Sentiments of *Gratitude* and *Honour* which naturally result from such a Consideration. (5.) To do nothing without their *Advice* or *Counsel*, at least not contrary thereto, in Matters merely *human*, and of *civil Concern*. (6.) In Matters of Religion they ought to keep a Conscience void of Offence towards God and Man, and to profess that Form which they judge to be most pure and agreeable to the Institutions of Christ, whether their *Parents* profess the same or not; for in this Case they are obliged to obey *God* rather than *Man*, though a *Father* or *Mother*. (7.) They ought to bear with a becoming *Patience* the *Oddities, Perversities, Vices, &c. Imperfections* (if any) of their *Parents*: and endeavour to *hide* and *extenuate*, and not *expose* them to the World. (8.) To *support* and *succour* their *Parents* in case of *old Age, Poverty*, or other Circumstances which may require their Assistance. He must be an *unpardonable Wretch*, a Monster of human Nature, who can see his *Father* that *begat* him, his *Mother* that *bare* him, live in the Want of any thing in his *Power* to supply them with.

Of Masters
and their
Power.

THE third and last kind of *Relation* in a *domestic Society* is that of *Masters* and *Servants*. In all Ages *Masters* of Families have found it not only convenient but necessary to procure *Servants* to take care of and perform the laborious Part of their *Domestic Affairs* and *Business*. And on the other hand, *Necessity* and *Want* have obliged many to apply themselves to others, and agree to serve them for *Food, Raiment, or Money* to procure the same and other *Necessaries* of Life, which Conditions are call'd *Wages* or *Hire*. But these Things are only to be found in a *Free Nation*; in others, *Servants* are either *purchased with Money*, and are then call'd *Slaves*; or are taken in *War*, and are then call'd *Captives*; and their Condition a *State of Slavery* and *Captivity*. In a free Country, as *England*, the Condition of *Servants* is so voluntary, and, with respect to Time and *Masters*, so much in their *Choice* and *Power*, that it can hardly be call'd

call'd a State of *Thralldom* or *Servitude*, but rather of *free Service*, if the Expression can be allow'd.

THE Office and Duties of Masters towards Servants are (1.) To be *mild* and *gentle* in their Behaviour to them. (2.) To be *reasonable* in their Demands and *Injunction* of Services upon them. (3.) To allow them proper *Diet*, *Rest*, &c. necessary to enable them to perform their Work and Service. (4.) To give them *wholesome Advice* and *Instruction*, and to *reprove* them for *Vice*, *Follies*, for *Negligence* in Business, &c. (5.) To *teach* them *fully*, and without *Reserve*, the *Art* and *Mystery* of the Trade or Business they are to learn. (6.) To *pay* them *justly* and *duly* the *Wages* or *Hire* agreed for when it becomes *due*, or when after the *Servant* shall demand it. (7.) In all Respects a *Master* ought to do to his *Servant* as he himself would chuse to be dealt with, were he in a *Servant's* Circumstances.

The Duties of Masters.

THE Duties of a *Servant* to his *Master* or *Mistress* are very obvious; as, (1.) To obey them well in all Things of a civil Concern. (2.) To be *diligent* in Business, not *slothful*, nor serving with *Eye-service*. (3.) To be *faithful* and *trusty* in the Discharge of all the Trusts repos'd in them, and in executing all Orders and Commands. (4.) To be *honest* and *just*, not purloining or squandering away their Masters Goods clandestinely. (5.) To be *quiet*, *peaceable*, and *patient* under Reproof, and to avoid all *Obloquy* and *Recrimination*. (6.) In short, they ought so to demean themselves as they would expect *Servants* should do, were they in the Master's Place. Thus much may suffice for *Oeconomics*, or *Household Government*.

The Duties of Servants.

THE second Sort of Society mention'd, was that of *Citizens*, or People living together in *Cities* and *Towns* *Corporate*. And because this is a *collective Idea*, or consisting of divers *simple Societies* or *Families*, 'tis impossible but that a very different *Form* and *Order* of *Laws*, *Rules*, and *Government* should be here instituted and exercised, from *Oeconomy*, or that of a *Family*; for of various *Families* combined and united, there must needs arise a *compounded Interest*, and various *Relations*, which require very different Methods to settle and regulate, than do those of a single Family.

Of Civil Societies.

AND since the *Greeks* (from whom we receive the *Terms* and *Art* of Government) call'd a *City*, in their

Polity and Politics.

Tongue, *Polis* ; therefore the Government was call'd *Politia*, or *Polity* and *Policy* ; and thus Books which treat thereof, or the Art itself, are call'd *Politics* ; and those who are skill'd therein, *Politicians*.

*A Republic or
Common-
wealth,
whence.*

ALSO since a *Nation* or *Commonwealth* is but a Spot of Earth, or a Land wherein are many of those *Cities* and *Towns*, united in a common Interest, and order'd and govern'd by the same Laws, it came to pass, that the Rule and Governance of any Nation or Land came to be call'd the *Policy* of that Land or Country ; and because of the *Common-weal* or *Good*, or *public Affairs*, respected and conserved thereby, it was indifferently call'd a *Common-wealth* or *Republic* ; and hence they who dispense the *Laws* are also said to *administer the Republic* of the same Country.

*Diversity of
Government.*

NOW since *Policy* or *Government* necessarily implies a *State* of *Superiority* and *Subjection* ; for no one can properly be said to rule or bear sway, or govern, unless there be some who are ruled, or *Subjects* of their *Government* ; so necessarily also follows a *Diversity* of *Governments* or *Policies*, according to the *Regents* or *Persons* governing, the *Societies* governed, and the *Manner* of *Acquisition* and *Administration* of the *Supreme Power*.

Theocracy.

WITH respect to the first *Diversity* of *Government* arising from the *Regents*, or *Persons* exercising the *Supreme Power*, it is distributed into the following *Kinds*. (1.) *Theocracy*, when *People* are under the immediate *Rule*, *Government*, and *Direction* of *God* himself, in *Civil*, as well as *Religious Affairs* ; and such a *State* is call'd *Theocratical*, as was that of the *Children of Israel* originally under *Moses*, *Joshua*, and the *Judges*, till they changed it for that of *Monarchy*, to be like other *Nations* about them. (2.) *Monarchy*,

Monarchy.

when one *Person* alone doth govern, who is therefore call'd a *Monarch*, and his *Government* is said to be *monarchical*. If he be a good *Prince*, he is called *King* ; if a bad and unjust one, he is called a *Tyrant*, and his *Reign* *tyrannical*. (3.) *Aristocracy*, when a few of the best and chief of the *People* rule and govern jointly, the *Administration* of such a *Republic* is call'd *Aristocratical*. If these *Men* are only a few of the *richer Sort*, and have obtain'd the *Government* by *Force*, and not *Right*, their *Regency* is then call'd, (4.)

Aristocracy.

Oligarchy.

Oligarchy, and the *Manner* in which they obtained it is

is call'd *Usurpation* ; and they themselves *Usurpers*. (5.) *Democracy*, which is when the *Multitude* doth rule ; and such a *State of Administration* is said to be *Democratical*. Here the Fathers of Families assemble in *Council*, make *Laws*, ordain *Statutes*, and exert all other Acts of *Imperial Power* and *Authority*. *Democracy.*

WITH regard to the *Societies* or People, in and over whom the Government is exercis'd, there will arise *Policy* of a fourfold Denomination. (1.) *Oeconomics*, or that of a *Family*. (2.) *Politics*, which, properly so call'd, is that of a *City*. (3.) *Republic*, that of a *Country* ; and, (4.) *Empire*, which is the highest and most extensive Degree of *Imperial Power* and *Sway* ; as having not only *Families* and *Cities*, but *Nations* and *Kingdoms* subject thereto ; and the Person who bears this most *Imperial Sovereignty*, is call'd *Emperor* ; as the *Emperor of China*, the *Indies*, &c. *Policy fourfold.*

As to the Manner of acquiring and administering the Government, if it be just and righteous, the Government is then said to be *free*, and the People in a State of Liberty, as having all their public Affairs order'd and administer'd according to the Rules of *Right* and *Equity*, which is all they can desire of *Governors*. But if the Government be obtain'd by *Force* and *Violence*, and exercis'd by the arbitrary Will and Pleasure of the *Ruler*, without consulting or regarding the *Will*, *Request*, *Right*, or *Good* of the People, such a State is call'd *Tyranny*, a State of *Slavery*, an *arbitrary* and *despotic Government* ; and the People are said to be (not govern'd, but) tyranniz'd over and enslav'd by *arbitrary Power*. *Of the Acquisition and Administration of Government.*

By what has been hitherto defined, it appears that the *Civil State* or Government of Great Britain is not a *Simple Polity* ; that is, it is not a *Monarchy*, *Aristocracy*, or *Democracy*, singly consider'd, but is rather a *Compound* of them all together ; for tho' we have one *Supreme Ruler*, whom we call our *King*, yet he reigneth not by himself, nor is he *absolute*, but he governs by, and in *Conjunction* with the great *Council* and *Assembly* of the *Nobles* of the Land, which we call the *Parliament*. Nor is even this august Assembly uniform or independent, for it consists of two very different Parts, one of the *Higher Nobility* both *Temporal* and *Spiritual*, call'd the *House of Lords* ; the other Part is made up of the *Lower Nobility* or *Commonalty*, the *Knights* and *Burgeses*. *Tyranny.*

Burgeſſes of Shires and Borough Towns, and are call'd the House of Commons, or the Lower House.

The Dependence thereof.

Now the *Higher House* receiveth not, nor meddleth with any of the *public Affairs* of the Nation presented by *Bills*, till those *Bills* have first pass'd a Hearing and Examination in the *Lower House*, and have obtained their *Consent*. *Lastly*, this *Lower House* is entirely dependent on the *common People*, or *Populace*; for the Members thereof are chosen by *them*, to act for *them*, as their *Representatives for a short Time*; and if during that Parliament they act not according to the *People's Request*, and what they think conducive to the Public Good, they reject them at the next general *Election* of Members of Parliament, and chuse others of whom they have a better Opinion, and think will prove more faithful, wise, and worthy of the *important Trust*.

Now since the *common People* chuse the Members of one Part of the *Great Council* of the Land; and since the other Part thereof, though greater in *Dignity*, can receive no *Address of the People*, or make any *Law* without their *Consent*; and, *lastly*, since no Bill is an *Act of Parliament, Ordinance, Statute, or Edict of Law*, tho' both Houses have consented thereto, till the *King*, seated on the *Throne of State*, shall give his *Royal Assent*, and sanction it with the *great Seal of England*; I say, considering all this, 'tis evident the *State or Polity of England* is compounded of the three *Simple Polities, Monarchy, Aristocracy, and Democracy*, and may be call'd a *Monarchico-Aristocratico-Democratical Government*; and consequently better than either of them singly or alone, as was before observ'd of our *Language*.

Of the King of Great Britain.

THE MONARCH or KING of Great-Britain, tho' he be not in all Respects absolute, yet his Dignity and Power is very great and extensive. For, (1.) His *Supremacy and Sovereignty* has the *Dignity and Honour* of whatsoever Things belong to *supreme Magistrates*; as *Crowns, Scepters, Purple Robe, Golden Globe, and Holy Unction*; and the *Crown of England* has been long since declared in Parliament to be an *Imperial Crown*. (2.) He acknowledges only Precedence to the *Emperor*. (3.) He owns no *Superiority* to the *Bishop of Rome*. (4.) He hath the *supreme Right of Patronage* thro' all *England*, call'd *Patronage*

nage Paramount. (5.) The King is *supreme Judge*, or *Lord Chief Justice of England*, and the *Fountain* whence all Justice is supposed to be derived.

THE King's Power and Prerogative are very extraordinary; for (1.) He alone, without Act of Parliament, hath Power to declare War, make Peace, *His Power and Prerogative.* Leagues and Treaties, send and receive Ambassadors, to give Commissions for levying Men, Arms, Money, for the Purposes of War and Peace, &c. (2.) By his Royal Prerogative, of his mere Will and Pleasure, he can convoke, adjourn, prorogue, remove, and dissolve Parliaments. (3.) He may refuse his Royal Assent to any Bill which has pass'd both Houses, without giving his Reason. (4.) He alone hath the Choice and Nomination of all Commanders and Officers at Land or Sea; of all Magistrates, Counsellors, and Officers of State; of all Bishops, and other Ecclesiastical Dignitaries; of bestowing all Honours on the Higher and Lower Nobility of England. (5.) He hath the Power of determining Rewards and Punishments, can pardon Crimes and remit the Penalties. (6.) By his Letters Patent he may erect new Universities, Colleges, Hospitals, Schools, Fairs, Markets, Forests, Chases, &c. (7.) He only gives Patents or Briefs to collect the charitable Benevolences of the People, in case of Losses, &c. (8.) No Proclamation can be made but by the King. (9.) He is the Guardian of Ideots and Lunatics, the Receptacle of all Estates when no Heir appears, which then revert or escheat to the King. (10.) All Treasure Trove, (or Monies, Goods, &c. lost, and the Owners unknown) belongs to the King. All waste Ground and Lands recover'd from the Sea; all Lands of such Aliens as die before Naturalization; all Mines of Gold and Silver, all royal Fishes and Fowls, belong to the King. (11.) He is deem'd by the Laws God's Vicegerent, and therefore is supposed to have no Imperfection. No Non-Age or Minority is allow'd in the King; yea, the Law attributeth a Kind of Perpetuity, not to say Immortality, to the King; for he being a Corporation of himself, lives for ever, all Interregnums being unknown in England. (12.) In the Church his Power and Prerogative are extremely conspicuous; he alone hath the Patronage of all Bishopricks, and none can be chosen Bishop, but whom he first nominates by his *Congé d'Elire*; he hath Power

to call or convene a *National* or *Provincial Synod*, to preside as *Head*, and with the Consent thereof to make *Canons* and *Constitutions*; to institute *Ceremonies*, to correct *Heresies*, *Schisms*, &c. and abundance of other *Prerogatives* belong to, and are enjoy'd by the *King of England*, as *Supreme Prince* and *Priest* of his *People*.

His Title.

THE Title of the *King of England* is, *By the Grace of God, of GREAT-BRITAIN, FRANCE, and IRELAND, King, Defender of the Faith.* The Title of *Most Christian King* was given to *Henry VIII.* by the *Lateran Council*, tho' used before by *Henry VII.* The Title of *Grace* was given to the *King* about the Time of *Henry IV.*; *Excellent Grace* to *Henry VI.*; *High and Mighty Prince* to *Edward IV.*; *Grace*, and sometimes *Highbness*, to *Henry VII.* To *Henry VIII.* first *Highbness*, then *Majesty*; and now *Sacred Majesty*, or *Most Excellent Majesty*. In speaking to the *King*, is used *Sir*, or *Your Majesty*; and the *King of England*, since the Time of *King John*, styles himself *Nos, We*, in the Plural Number, in his public *Instruments* and *Letters*.

The Prince of Wales.

THE eldest Son of the *King of England* is born *Duke of Cornwall*, afterwards he is created *Prince of Wales*, a Title first given by *Edward V.* to his eldest Son. Since the Union of *England* and *Scotland*, his Titles are, *Prince of Great-Britain*, more commonly *Prince of Wales*, *Duke of Aquitain* and *Cornwall*, *Earl of Chester* and *Flint*. He is reputed, in our Law, as the same Person with the *King*. The present *Prince* is his *Royal Highbness FREDERIC LEWIS*, *Prince of Brunswick*, born at *Hanover*, *January 30, 1706*; and on *April 27, 1736*, he was married to the Excellent Lady *AUGUSTA*, *Princess of Saxe-Gotha*, in the Circle of *Upper Saxony*, in *Germany*.

Of the Great Officers of the Crown.

NEXT to the *King* and *Princes of the Blood*, are reckon'd the *Great Officers of the Crown*, whereof there are *Nine*; as follow.

The Lord High Steward of England.

THE LORD HIGH-STEWARD of *England*; he was formerly the highest Officer under the *King*; and his Power was so exorbitant, that it was thought too much to be trusted any longer in the Hands of any Subject. The last who had a State of Inheritance in this high Office was *Henry of Bullingbrook*, afterwards

wards King of *England*; since which time they have been made only occasionally, as to officiate at *Coronations*, *Arraignment of Peers*, &c. which when over, he openly breaks a *White Staff* in his Hand, and so his Office ends.

THE *LORD CHANCELLOR*, or *Lord High Chancellor*, is, at present, the highest Person in the Kingdom next after those of *royal Blood*, in *Civil Affairs*; so call'd, because all *Patents*, *Commissions*, *Warrants* coming from the King, and perused by him, are sign'd, if well; or *cancelled*, where amiss. His Office is to keep the King's *Great-Seal*, to moderate the *Rigour of Common Law*; to judge according to *Equity*, *Conscience*, and *Reason*; to bestow all Ecclesiastical Benefices in the King's Books under 20*l. per Annum*. He is sworn to do *Right* to all People, to counsel the King truly, to keep secret the King's Council, not to suffer the Rights of the Crown to be diminish'd, &c. This *High Office* is held during the King's Pleasure; the Salary is above 7000*l.*

LORD HIGH-TREASURER of *England* is the third *Great Officer* of the Crown. It is conferr'd by the Delivery of a Staff to him by the King, and is held during the King's Pleasure. His Office is to have the Charge and Government of all the King's Revenues kept in the *Exchequer*: He is *Superintendent* over all the Officers employ'd in collecting the *Imposts*, *Customs*, and *Tributes*, &c. belonging to the Crown. He hath the Gift of all the Officers of the Customs in all the Ports of *England*. He, in Commission with others, lets Leases of all Lands belonging to the Crown. His Salary of late was 8000*l. per Annum*.

THE *LORD PRESIDENT* of the King's *Privy Council* is the fourth *Great Officer*; his Office is to attend upon the King, to propose Business at the *Council-Table*, and to report to the King the Transactions there. This Office is held by *Patent*, during the King's Pleasure.

LORD PRIVY-SEAL is the fifth *Great Officer*, under whose Hands pass all *Charters* and *Grants* of the King, and *Pardons* sign'd before they come to the *Great-Seal* of *England*; with divers other Matters which do not pass by the *Great-Seal*. He is of the King's *Privy-Council*. His Salary is 1500*l. per Annum*.

THE

Lord Great-
Chamberlain
of England.

THE LORD GREAT-CHAMBERLAIN of England is the sixth Great Officer of State, and is of great Antiquity; to him belongs *Livery* and *Lodging* in the King's Court. He presents to the King on the *Coronation-Day* all his *Robes*, and other Parts of *Royal Attire*, as also the *Sword*, *Scabbard*, the *Crown*, and *Gold* to be offered by the King, &c. On such a Day he hath forty Ells of *Crimson Velvet* for his own *Robes*. To him belongs the Care of providing all Things in the *House of Lords* in the Time of *Parliament*; also the Government of the whole *Palace of Westminster*. He issues out Warrants for furnishing *Westminster-Hall* against *Coronations*, and *Trials* of *Peers*, &c. The *Gentleman-Usher*, *Yeoman-Ushers*, and *Door-Keepers* are under his Command. He disposes of the *Sword of State* to what Lord he pleases to be carried before the King, and goes himself on the Right-Hand of the *Sword* next the King's Person, and the *Lord Marshal* on the Left. On all solemn Occasions the *Keys of Westminster-Hall*, *Court of Wards*, and *Court of Requests*, are deliver'd to him. He is not to have *Precedence* of *Dukes*, but according to his *Creation*.

Lord High-
Constable of
England.

THE LORD HIGH-CONSTABLE of England is the seventh Great Officer of the Crown; whose *Power* and *Jurisdiction* was antiently so great, that after the Death of the Duke of *Buckingham* 1521, it was thought too much for any *Subject*; and therefore since that time this Officer is created only on Occasions of *Coronations*, *Trials by Combat*, &c. His *Power* and *Authority* is the same with the *Earl-Marshal*, with whom he sits Judge in the *Marshal's-Court*, and takes Place of the *Earl-Marshal*.

Earl Marshal
of England.

THE EARL-MARSHAL of England is the eighth Great Officer of the Crown: He is an *Earl* by his Office, whereby he takes Cognizance of all Matters of *War* and *Arms*, determines Contracts concerning *Deeds of Arms* out of the *Realm* upon Land, and of *War* within the *Realm*, which can't be determin'd by *Common Law*; he formerly had several Courts under him, but now only the *Marshalsea*. This Office has been long Hereditary in the present House of *Norfolk*; the first being *Earl-Marshal* in 1553. But the present Duke of *Norfolk* being a *Papist*, is uncapable of the Office, though he is allow'd the Honour,

Honour, and officiates by his *Deputy* the *Earl of Effingham*.

THE *LORD HIGH-ADMIRAL* of Eng- *Lord High-Admiral of*
land is the ninth and last *Great Officer* of the *Crown*. *England.*
He is entrusted with all *Maritime Affairs*, as well in
respect of *Jurisdiction* as *Protection*. He hath the
Government of the *King's Navy*, and the Power of
*Decisio*n in all *Cases Maritime*, as well *Civil* as *Crimi*-
ninal; and of all Things done upon or beyond the
Seas in any Part of the World, upon *Sea-Coast* and
Rivers near the *Sea*. He hath Power to commissionate
a *Vice-Admiral*, *Rear-Admiral*, and all *Sea-Captains*,
and other *Officers* at *Sea*. To him belong all *Penal*-
ties, *Amerciaments*, Goods of *Pirates*, *Felons*, &c.
as also all *Stray-Goods*, *Wrecks* at *Sea*, *Deodands*, &c.
all great *Fishes*, as *Sea-Hogs*, and all *Royal-Fishes*,
except the *Whale* and *Sturgeon*.

THESE are the great *Streams* of *Government*,
Policy, and *Rule*, which flow from the original *Foun*-
tain, the *King*, to the *common People* of the *Realm*;
amongst whom it subdivides, in various ways, into
lesser *Currents* and *Rivulets* of *Power* and *Authority*;
by which means our *Commonwealth* is (or at least
might be) enrich'd and fertiliz'd by a seasonable and
uniform *Communication* and *Flowing* of the *Waters*
of *Judgment*, *Equity*, and *Truth*.

THE *Great Courts* of *Judicature*, *Civil* and *Mili*-
tary, are as follow:

THE *PRIVY-COUNCIL*; this is that *August*
and *Honourable Assembly*, by which the *King* is *advised*
and *counsel'd*; and which consults for the *public Good*,
Honour, *Defence*, *Safety*, and *Benefit* of the *Realm*;
not meddling with *Matters* which may be determin'd
by the *known Laws* and *ordinary Courts* of *Justice*;
but *Matters* of *Complaint*, and *sudden Emergencies*.
The *Members* of this honourable *Council* are such as
the *King* of his own free *Will* and *Pleasure* shall
chuse, and are generally of the *highest Rank*, and
eminent for *Wisdom*, *Courage*, *Integrity*, &c. They
sit at *Council-Board*, when his *Majesty* *presides*; and
at all *Debates* the *lowest* delivers his *Opinion* first, and
the *King* last of all declares his *Judgment*, and thereby
determines the *Matter* of *Debate*.

THE most *High*, *Grand*, and *Honourable Court*, *The Parlia-*
in which the most *supreme* and *absolute Power* of the *ment of Eng-*
Realm *land.*

How assembled

Realm of *England* doth consist, is the *PARLIAMENT*. This *High Court* or *Assembly* consists of two Parts or Houses, call'd the *Higher* and *Lower Houses* of *Parliament*. The Members hereof are of three Sorts, viz. (1.) The *Peerage* and *Barony*, who represent the higher Part of the *Commonwealth*; (2.) The *Knights*, *Esquires*, and *Gentlemen*, who represent the lower Part; and (3.) *Bishops* or *Prelates*, who represent the *Clergy*; over all which the *King* himself presides. The *Parliament* is assembled or summoned by Virtue of the *King's Writs*, commanding the *Peers* and *Prelates* to appear at such a Place at such a Time, and the *Sheriffs* of the Counties to summon the People to elect two *Knights* for each *County*, two *Citizens* for each *City*, and one or two *Burgesses* for each *Borough*, according to *Statute*, *Charter*, or *Custom*. No Man can vote for a *Knight* of the *Shire* who is not possess'd of 40 Shillings *per Annum* Freehold Estate. None can legally sit in *Parliament* till he is of the full Age of 21 Years. The Place of Meeting is in the *King's* antient Palace of *Westminster*; the *Lords* in one Room, and the *Commons* in another below them. The *King*, *Lords*, and *Commons*, must all, or the greatest Part, agree to the making of *Laws* and repealing them. In order to this, a *Bill*, which contains the Form of the Matter proposed, is presented to one of the Houses, who either approve it, and send it to the other House for their Approbation; or else they reject it, and so it proceeds no farther than *Sessions*. When a *Bill* has pass'd thro' both Houses, with Consent, a *Committee*, or a certain Number of the Members of either or both Houses (not less than eight) is appointed to frame the *Laws* upon such *Bills* as are agreed upon, which are afterwards ratified by the whole House; and whatsoever is thus approved, consented to, ratified, and sanction'd by the *King*, *Lords*, and *Commons* in *Parliament* assembled, is call'd an *Act of Parliament*, a *Statute* and *Ordinance*, a *Rule* and *Law* of the *Land*; and is by the Subjects to be esteem'd *just* and *good*, and to be obeyed.

King's-Bench.

THE *KING'S-BENCH* in *Westminster-Hall* is, next to the *Parliament*, the highest Court in *England* at *Common-Law*; in which are handled the *Pleas of the Crown*, or all things which concern the *Loss of Life*

Life or Member of any Subject; as also all *Treason, Felonies, Breach of Peace, Oppressions, Misgovernment, &c.* In this Court are four grave reverend Judges, whereof the first is call'd the *Lord Chief Justice of the King's Bench*, whose *Power, and Jurisdiction* of the Court is very great over all *England*. His *Salary* from the King is 2000*l.* that of the other *Justices* 1500*l.* *per Annum* each.

THE *HIGH COURT* of *CHANCERY*, *Court of Chancery*, because it is design'd to mitigate the *Rigour* of the other Courts of *Judicature*, is call'd the *Court of Equity*; and is the *Original* of all other Courts. The *Judge* of this Court is but one, viz. the *Lord Chancellor* or *Lord-Keeper* of the *Great Seal* of *England*, whose *Sentence* is definitive without a *Jury* of twelve Men. The *Judge* hath twelve *Assistants*, call'd *Masters of Chancery*, the first of which is *Master of the Rolls*, a Place of great *Dignity*. Another Officer, who continually attends the *Lord Chancellor*, is the *Clerk of the Crown*, an *Office* of very high *Importance*. Besides which there are many other *Offices* and *Officers* in this Court; which render *Suits* so very *chargeable* and *tedious*, that a *Person* is little beholden to this Court for more than the *fine* (not to say *false*) *Name* that it bears.

THE *COURT* of *COMMON PLEAS* is *Court of Common Pleas*, next, and is so call'd, because therein are debated the *usual* and *common Pleas* between *Subject* and *Subject*, according to the strictest *Rules* of *Law*. None but *Serjeants* at *Law* may plead in this Court. The *Chief Judge* is call'd *The Lord Chief Justice of the Common Pleas*; besides which there are commonly three *inferior Judges*. This Court is held in *Westminster-Hall*.

THE *COURT* of *EXCHEQUER* is next *Court of the Exchequer*, for the *Execution* of the *Laws*. In the *Exchequer* are held two Courts, one of *Law*, the other of *Equity*, in the *Exchequer Chamber*. In this Court may sit the *Lord Treasurer*, the *Chancellor of the Exchequer*, the *Lord Chief Baron*, three other *Barons* of the *Exchequer*, and the *Cursitor Baron*. In this Court are tried all *Causés* relating to the *King's Treasury* or *Revenue*, as touching *Accompts, Disbursements, Customs*, and all *Fines* imposed on any *Man*.

THE *COURT* of *ADMIRALTY* is the *Court of Admiralty*, Principal or *Supreme* of the Courts held by and under the *Lord High Admiral*; it takes *Cognizance* of all

all Affairs *Civil* and *Military* on the Seas, which are within the *Jurisdiction* of the Common Law : Therefore the Proceedings in this Court, in all *Civil Matters*, are according to the *Civil Law*, and run in the Name of the *Admiral*, and not of the *King*, as in *Common Law*. In this Court he has a *Lieutenant* call'd *Judge of the Admiralty*, who is commonly some learned Doctor of the *Civil Law*.

THESE are the Great and High *Tribunals*, *Benches*, or *Courts* of *Judicature* established in *England* for the public Administration of *Justice* and *Equity*.

Of the Government of Counties.

Justices of the Peace.

FOR the Government of the several *Counties* or *Shires* in *England*, the *King* has deputed and commissioned several *Officers* with Power and Authority to put in Force and execute the Laws upon the Subject. These are (1.) The *Justices of the Peace*, whose Office it is to charge and keep the *Peace* of the County, and to examine and commit to Prison all who break or disturb the same, and disquiet the *King's* Subjects. In order to this, they meet every Quarter at the County-Town, when a Jury of twelve Men, call'd the *Grand Inquest* of the County, is summoned to appear, who, upon Oath, are to enquire into the Cases of all *Delinquents*, and to present them by Bill guilty of the *Indictment*, or not guilty; the *Justices* commit the former to Goal for their *Trial* at the next *Affizes*, and quit the Innocent. This is call'd the *Quarter-Sessions* for the County. (2.) *Sheriffs of the County*, or the *High-Sheriff*, whose Business it is to execute the *King's Mandates*, and all *Writs* directed to him out of the *King's Court*, to impanel *Juries*, to bring Causes and *Criminals* to Trial, to see the *Sentences* both in *civil* and *criminal* Affairs executed, to wait on and guard the *Itinerant Judges* twice a Year in their *Circuits* for the *Affizes*. Under the *Sheriff* are various *Officers*, as *Under-Sheriff*, *Clerks*, *Stewards* of Courts, *Bailiffs* of *Hundreds*, *Constables*,

Sheriffs.

Bailiffs of the Hundred.

High Constable.

Coroners.

Goalers, *Beadles*, &c. (3.) *Bailiffs of the Hundred*, a very ancient Officer, but now of small Authority. (4.) *High-Constable* was first ordained for the Conservation of *Peace*, and *View of Armour*: He disperses *Warrants* and *Orders* of the *Justices of the Peace* to each *Petty-Constable*. (5.) *Coroners* are two in each County, who are to enquire, by a Jury of Neighbours, how, and by whom, any Person came by a

violent

violent Death, and to enter it on Record as a Plea of the *Crown*; whence they have their Name *Crowners* or *Coroners*. (6.) The *Clerk of the Market*, whose Office is to keep a *Standard* of all *Weights* and *Measures* exactly agreeing with the King's *Standard* in the *Exchequer*, to seal all *Weights* and *Measures* made exactly by the *Standard* in his Custody, and to burn such as are otherwise. He hath a *Court*, and may keep or hold a *Plea* therein.

Clerk of the Market.

THE *Civil Government* of *Cities* is a kind of small independent Policy of itself; for every City hath, by Charter from the King, a *Jurisdiction* among themselves to judge in all Matters *civil* and *criminal*, with this Restraint only, That all *Civil Causes* may be removed from their Courts to the Higher Courts at *Westminster*. To this End they are constituted with a *Mayor*, *Aldermen*, and *Burgeses*, who together make the *Corporation* of the City, and hold a *Court of Judicature*, where the *Mayor* presides as *Judge*. They likewise, when assembled in Council, can make *Laws*, call'd *By-Laws*, for the Government of the City. And here the *Mayor*, *Aldermen*, and *Common-Council* resemble the *King*, *Lords*, and *Commons* in Parliament.

Government of Cities.

Mayor and Aldermen.

THE *Government* of *Incorporated Boroughs* is much after the same Manner; in some there is a *Mayor*, in others *two Bailiffs*; in others the chief Magistrate is call'd *Portreve*, &c. All which, during their *Mayoralty* or *Magistracy*, are *Justices of the Peace* within their Liberties, and consequently *Esquires*. *Citizens* are not taxed but by the Officers of their own Corporation, every Trade having some of their own always of the Council, to see that nothing be enacted contrary to the Profit of their *Guild* or *Company*.

Of Corporations and Boroughs.

FOR the better Government of *Villages*, the Lord of the *Soil* or *Manour* (who formerly were call'd *Barons*) have Power to hold a *Court-Baron* every three Weeks, where Matters are enquired and discussed relating to *Lands*, *Possessions*, *Titles*, &c.

Of Villages,

AND, lastly, in *Parishes* and *Towns* there is a very useful Officer, call'd the *Petty-Constable*, who is to keep the *Peace*, in case of *Quarrels*, to search for, and take up *Rioters*, *Felons*, &c. and keep them in the Stocks or Prison till they can be brought before some *Justice of the Peace*; in which Office he is assisted by the *Tithing-Men*. Thus every City, Village, and

and Parishes.

and Town hath almost an Epitome of *Monarchical Government*, of *Civil and Ecclesiastical Polity* in itself, which, if duly maintained, would render us a happy People, and *Judgment* would run down our Streets as a River, and *Righteousness* like a mighty Stream.

Degrees of Nobility.

It now remains, that I only speak a Word or two of the Degrees of *Nobility* in *England*, and Titles of Honour. The Degrees of *Peccage*, or *Higher Nobility* of *England*, are five, viz. *Duke*, *Marquis*, *Earl*, *Viscount*, and *Baron*.

A Duke.

A *DUKE* is, at present, created by *Patent*; his *Mantle* is guarded with four *Guards*; his Title is *Grace*; his *Coronet* hath only *Leaves* without *Pearls*. Out of the King's Presence he may wear a *Cloth of State* hanging within half a Yard of the Ground; so may his *Dutchess*, and her Train borne up by a *Baroness*. No *Earl* is to wash in the Presence of a *Duke* without his Permission.

Marquis.

A *MARQUIS* is created by *Patent*; his *Mantle* is double *Ermin*, three *Doublings* and an half; his Title is *Most Noble*; his *Coronet* hath *Pearls* and *Strawberry Leaves* interchangeably set around of equal Height. His *Cloth of State* may reach within a Yard of the Ground, which he must not wear in the Presence of the King or a *Duke*. His *Marchioness* hath her Train born by a Knight's Wife out of the Presence of her *Superiors*. No *Viscount* is to wash with a *Marquis* but at his Pleasure.

Earl.

AN *EARL* is created by *Potent*; his *Mantle* hath three *Doublings* of *Ermin*; his Title is *Right Honourable*; his *Coronet* hath *Pearls* rais'd upon Points, and *Leaves* low between. He may have a *Cloth of State* without *Pendants*, but only *Fringe*. His *Countess* may have her Train borne by an *Esquire's* Wife out of the Presence of her *Superiors*, else by a *Gentleman*.

Viscount.

A *VISCOUNT* was first created in *England* in the 18th of *Henry VI.* in the Person of *John Beaumont*. He is made by *Patent*; his Title is *Right Honourable*; his *Mantle* hath two *Doublings* and a half of plain white Fur; his *Coronet* hath only *Pearls* set close to the *Chaplet*. He may have a *Cover of Essay* held under his Cup when he drinks. His *Viscountess* may have her Gown borne up by a *Woman* in Presence of her *Inferiors*, but else by a *Man*.

A BARON

A *BARON* is made sometimes by *Writ*, but usually by *Patent*; his Title is *Right Honourable*; he hath two *Doublings* on his *Mantle*, and six *Pearls* on his *Coronet* upon the *Circle*. He may have the *Cover* of his *Cup* held underneath while he drinks; and a *Baroness* may have her *Gown* borne up by a *Man* in the *Presence* of a *Viscountess*.

BESIDES the common Titles here mention'd, each of those Degrees have more illustrious Titles, as follow:

Their High Titles.

A *DUKE*, *Most High Puissant and Noble Prince*.

A *MARQUIS*, *Most Noble and Puissant Prince*.

An *EARL*, *Most Noble and Puissant Lord*.

A *VISCOUNT*, *Most Noble Potent and Honourable*.

A *BARON*, *Most Noble and Right Honourable*.

THE Title *Lord* is common to all these Degrees.

WE come now to the *Lower Nobility*, who are call'd the *Commons* of *England*, and consist of three Degrees, *Baronets*, *Knights*, and *Esquires*.

The Commons of England.

A *BARONET* is next in Honour to a *Baron*, and is the lowest Degree of Honour that is *hereditary*; they and their eldest Sons at full Age may claim *Knighthood*. He has Precedence of all *Knights*, except those of the *Garter*, *Bannerets*, and those who are *Privy-Counsellors*. They take place of each other according to the Date of their *Patent*. The Title is *Sir*, and their Wives are *Ladies*.

A Baronet.

A *KNIGHT* is, according to his Original, a *Military Man*, a *Soldier*, or *Man of War*; but now the Honour of *Knighthood* is conferred for some *Personal Merit* or *Desert*, and therefore dies with the Person, and descends not to his Sons. There are many Orders of *Knighthood*, but in *England* the chief and most honourable is that of the Order of *St. George*, call'd *Knights of the Garter*; next to which are the *Knights Bannerets*, of which there are now none in *England*. *Knights of the Bath* are next in Honour; and then *Knights Batchelors*, which Degree is now given to *Gown-Men*, as *Lawyers* and *Physicians*; and sometimes to *Artists*, as it was to that excellent *Mathematician* Sir *Isaac Newton*.

A Knight.

ESQUIRES make the next Degree of the *Lower Nobility*, so call'd of the *French Word* *Escuiers*, *Shield-Bearers*, because they were wont to bear before the

Esquires.

H h

Prince,

Prince, &c. in War a *Shield*, *Lance*, or other Weapon, and therefore they are call'd in Latin *Armigeri*, i. e. *Bearers of Arms*. Of this Title are (1.) All the *Eldest Sons* of *Viscounts* and *Barons*, also all their *Younger Sons*. (2.) All the *Sons* of *Earls*, *Marquises*, and *Dukes*; and no more by the Common Law. (3.) *Esquires* of the *King's Body*, among the *Officers* at Court. (4.) *Esquires* created by the *King*, by putting about their Neck a *Collar* of SS's, and giving them a *Pair* of *Silver Spurs*. (5.) Divers in superior Office for *King* or *State*, as *Serjeants* of *Royal Offices*, *Justices* of *Peace*, *Mayors*, *Counsellors* at *Law*, *Batchelors* of *Divinity*, *Law* or *Physic*, are all reputed *Esquires*, or of equal Degree, though none of them really are so.

The Gentry of
England.

THE GENTRY of England are the lowest Degree among the *Lower Nobility*: These are the Descendants of *antient Families* who have been always *free*, and never owed *Obedience* to any Man but their Prince, and who have always borne a *Coat of Arms*; so that properly none are *Gentlemen* but such as are born so: But in *England* the *King* being the *Fountain* of all Honour, he can make a *Gentleman* by *Charter*, or by bestowing on him some *honourable Employment*. *Merchandize* or *Trade* does not destroy *Gentility*.





Of JURISPRUDENCE.



JURISPRUDENCE is, according to its *Etymology*, the *Knowledge* of what is *Just* and *Right*; being derived of the two *Latin Words*, *Jus*, *Right*; and *Prudentia*, *Skill* or *Knowledge*. It is therefore by some defined, *The Art of Right and Wrong, Justice and Injustice*. By others, *The Knowledge of the Laws, Rights, Customs, Statutes, &c.* necessary for the doing of *Justice*.

Jurisprudence defined.

Its Etymology.

RIGHT (*Jus*) differs from *Law* (*Lex*,) (1.) As it is a *Genus* or general Kind, *Law* a *Species* only. (2.) Again, *Right* has Respect to the Nature of Things, as well *unwritten* as *written*, but *Law* has respect only to the *written* Rules and Precepts of *Right* and *Justice*. *Right* and *Equity* also differ. *Right* is the *Whole* of what is required, or may be claimed; *Equity* is that which abates so much of *strict Right*, as Reason, Goodness, and circumstantial Exigencies seem to demand.

Right, how it differs from

Law and

Equity.

Right is the Rule of *Justice*, which is the Virtue of giving to every one his Due. *Justice*, as it is concern'd in *Commerce* or *Government*, is respectively distinguished into *Commutative* and *Distributive*. *Commutative Justice* wholly regards the *Prices* and *Value* of Things, and observes only the simple or arithmetical Proportion of *Commutation*. But *Distributive Justice*, as exercised in *Governing*, is that which appoints *Rewards* and *Punishments*; and regards the Proportion call'd *Geometrical*; that is, as the Heinousness of one Crime is to the Heinousness of any other, so is the Degree of Punishment assigned for the former to that Degree thereof which is (or should be) assigned for the latter. But where can we find this Proportion of *Justice* observed in our *English Dispensation*, where the same Punishment is decreed for *Theft* and *Murder*, for *Murder simply*, or any how

Justice, what!

Is twofold,

Commutative

and Distribu-

tive.

compounded? Acts, certainly, widely differing in the Degree of their criminal Nature!

Kinds of Law

LAW, as it consists of the *written Dictates of Right Reason*, or the Rules and Precepts fit for the due Ordering and Government of *human Society*, is generally distinguished into the following three general Kinds. (1.) The *Law of Nature*. (2.) The *Law of Nations*; and (3.) The *Civil* (usually call'd the *Common*) *Law*. These are the grand Rules of Action, of which in their Order.

The Law of Nature.

THE *LAW of NATURE* is that universal Principle implanted in the original Constitution of all sensible Beings, whereby they are directed to perform all those Acts which are agreeable to their respective particular Natures, and tend to their Well-being in general. This Principle is, in *Mankind*, call'd *Natural Reason*; but in *Brutes* and other *Animals* it is call'd *Natural Instinct*. From hence result all *Natural Affections*, and the Acts of *Procreation*, *Education*, *Conservation*, and *Defence of Life*, in ourselves and our Young. By this *Natural Right*, every *Animal*, however despicable it may appear to us, has an *equal Claim to live*, and enjoy its Being *unhurt*, during the natural Period of its Life. And therefore it does not only shew an *inconsiderate, cruel and savage Temper* in Men, when they causelessly put poor Creatures to *Pain, Misery, or Death*, or for the sake of *Diversions or Curiosity*; but it is a manifest *Breach and Violation* of the *Natural Laws of Right and Life*, which those *Animals* enjoy, and are to be preserv'd and defended by, equally with their *human* (or rather *inhuman*) *Tormentors*.

The Law of Nations.

THE *LAW of NATIONS* is the Second great Rule of acting well and justly. This consists in whatsoever is done, or approved and appointed to be done by the Wisdom and Judgment of any *Nation*, Body of *People*, or *Society*, for the due Government and Conservation thereof; and is always proportionate to the *Exigencies of human Necessities*.

FOR *Experience, Use, and Necessity* find many things expedient to the Happiness of living in *Society*, beyond what the *mere Law of Nature* prescribes; and therefore Provision must be made for adjusting and settling all such Cases and Points as they emerge, by general Acts and Laws suitable to the Nature and Genius of the *Commonwealth* or *Society*. THIS

THIS universal *Law of Nations*, as it respects the general Behaviour and Manners of rational and social Beings, is twofold, viz. (1.) *Primary*, and which results from pure *Reason* and *Ratiocination*, and is founded in the very Nature of the human Species. Of this kind are all Acts of *Religion* and *Piety* towards God our Creator; *Patriotism*, or *Love* and *Zeal* to promote the Welfare and Happiness of our Country; and all Acts of Obedience to Parents and Magistrates in Children and Subjects. (2.) *Secondary*; which arises from *Use* and *Necessity*, and is constituted by the common Consent of Nations, for their mutual Subsistence and Continuation. According to this, Nations at first were distinguished; *Dominion* and *Government* founded; *Wars* decreed; *Treaties* made; and *Laws of Contracts, Obligations, Servitude, Manumission, &c.* were found necessary. By this *Law*, *Land*s and *Countries* are divided and bounded, *Societies* instituted, *Vicinity* of *Dwelling* and *Building* together, by which Means we come to have *Cities, Boroughs, and Villages.*

This Law is twofold.
Primary.

Secondary.

THE *CIVIL LAW* (the Professors of which are call'd *Civilians*) is the third general Rule of Justice and human Procedure. This is what every People ordains and constitutes for itself, or which is peculiar and proper to every City; according to the *Justinian* Definition. So the Law used by the City and People of *Rome* was called the *Roman Civil Law*; thus the *Common Law* of *England*, and the peculiar Laws of *Cities* and *Boroughs* (which are call'd *Municipal Laws*) make the Body of the *English Civil Law.*

The Civil Law.

FROM the foregoing Account of the three general Kinds of Law, it seems pretty natural to make the Comparison between the Nature of Law and a Tree. In a common Tree we consider the *Roots, Trunk* or *Body*, and the *Limbs* or *Branches*. So in the legal Tree, the *Root* is the *Law of Nature* diffusely spread thro' all the *Soil* of *Animal Kind*; the *Trunk* or *Body* is the *Law of Nations*, which immediately springs from the radical Law of Nature, and is but one and the same to nearly all Mankind. The *Limbs* or *Branchery* of the legal Tree is the *Civil Law* vastly extended, diversified, and branched out into the *Common Laws* of every separate Country, and the *Municipal Laws* of *Cities* and *Corporations.*

*The Roman
Civil Law.*

WHEN the *Civil Law* is mention'd absolutely, or without saying of what *City* or *Country*, 'tis usual to understand thereby the *Civil Law* of the *Romans*, which is so called by way of Excellency: A short Account of the Original and progressive Perfection of which may not be unacceptable, perhaps, and here follows.

*A short History
of it.*

ABOUT *A. M.* 3152. *Lycurgus* instituted excellent Laws for the *Lacedemonians* or *Spartans* in *Laconia*; and afterwards, *A. M.* 3460, *Solon* did the same at *Athens*; by which means *Greece* became famous for its Laws; and therefore the *Romans*, (remarkable for their Care of the *Legislature*) about *A. U.* 300. sent three *Legates* to *Athens*, and other Cities of *Greece*, to transcribe and bring home the best of their Laws, for their own Use. After three Years they return'd, and seven other learned Men being appointed to join them (from their Number call'd the *Decemviri*) they were invest'd with Power to regulate the Business of new modelling the Laws. Whereupon they reduced and digested them into ten Tables, and then expos'd them to public View, with Liberty for any Person to make Exceptions. Upon the Approbation of the Citizens, a Decree pass'd for the Ratification of the new Laws. Some little time after the *Decemviri* (or ten Men) saw Occasion to add two more Tables of Laws to the former ten; and from these twelve Tables, as the Source and Fountain of Right, issued all the Streams of public and private Law and Equity, by which the *Commonwealth* was regulated and governed.

*The Roman
By-Laws.*

THE *Romans* had also certain By-Laws, besides the twelve Tables; as (1.) The *Plebiscita*, which were Laws made by the *Commons*, without the Authority of the *Senate*. (2.) The *Senatusconsulta*, which were Ordinances made by the sole Authority of the *Senate*. (3.) The *Jus Honorarium*, which consisted of the *Edicts* of the *Prætors*, or some chief Magistrate. And (4.) The *Principalis Constitutio*, or Principal Ordinance, which was enacted by the *Prince* or *Emperor*, at the time when the Government was in the Hands of a single Person.

*The Laws of
twelve Tables.*

THE *Laws* of the twelve Tables were divided into three Parts. (1.) The first related to the Concerns of Religion. (2.) The second Sort to the Right of the *Publick*.

Publick. (3.) And the last to the Right of *private Persons*.

THESE Laws being establish'd, Disputations and Controversies in the Courts became unavoidable, since the Interpretation of those Laws was to be founded on the Authority of the Learned. And this Body of Interpretation they especially called the *Jus Civile*, or Civil Law. Besides, out of all these Laws the Learned compos'd a Scheme of *Forms* and *Cases*, by which the *Processes* in Courts were directed. These were term'd *Actiones Legis*, or Actions or Cases at Law.

THE Roman Laws daily increasing, they at length arose to such an exorbitant Bulk, that in the Time of *Justinian* there were two thousand distinct Volumes on this Subject. They being therefore thus tedious, and almost useless, he form'd a Design of reducing them to a more reasonable Number and Quantity. Accordingly he set his Chancellor *Tribonian* about the Work, *Anno Dom.* 528, which was happily compleated in the compiling the four Volumes or Tomes of the *Civil Law* now extant, and which have so much contributed to the Regulation of all the States in *Christendom*. These are the *Digest* or *Pandeets*, the *Code*, the *Institutes*, and the *Authentics* or *Novellæ*, of which a little in Order.

THE DIGEST is the first Volume of the *Civil Law*, and was thus named, because its Author (*Tribonian*) hath put or digested all Things together, every Book and Title in its natural Place and Order. This Tome has also the Name *Pandeets*, as being a Collection of all that was material in one hundred and fifty thousand Verses of the old Books of the Law. This *Digest* was compiled from the Works of twenty-seven venerable and eminent old Lawyers, who lived before and after *Christ*, even to the time of *Maximinus*. The Tome is divided into seven Parts, and they again into fifty Books.

THE CODE makes the second Volume of the *Civil Law*. It contains twelve Books; was compiled from the Answers and Determinations of fifty-six Emperors and their Councils (many whereof were learned and skilful Lawyers) especially from the Time of *Adrian* to *Justinian* himself. It was intended to supply the Defects, and illustrate such Matters as were

Reduction of the Roman Laws into four Volumes.

The Digest or Pandeets.

Of the Justinian Code.

The Theodosian Code.

handled too briefly, obscurely, or omitted in the *Digest*; and therefore contains Things of more Benefit and Use to Mankind in general, tho' its *Stile* is not so pure, nor its Method so accurate as that of the *Digest*, which contains Matters of much more polite, subtle, and witty Argument. Besides the *Justinian Code*, there is another call'd the *Theodosian Code*, from the Emperor *Theodosius*, who caused it to be made; it is of good Use, for (as it is said) there is no understanding the former without its Help.

Of the Institutes.

THE *INSTITUTES*, or *Imperial Institutions*, make (according to some) the third Volume of the *Civil Law*. It is a Compendium of the *Digest* drawn into four Books, and each Book into a certain Number of *Titles*; these were appointed by the Emperor to be compos'd on purpose for the Use of *young Students*, that so having the *first Elements* of the whole Profession in this small Volume, they might the sooner gain a competent Knowledge of it, without being discouraged by the Largeness of the other Volumes. These *Institutes* ought to make a Part of every Gentleman's (I had almost said every Man's) Study.

The Authentics

THE *AUTHENTICS* make the fourth and last Volume of the *Civil Law*. They are so called, as having the *Authority* of the Emperor *Justinian's* own Mouth, being a Body of *new Constitutions* set out by him after the *Code*. The Volume is divided into nine *Collations* (in the *Latin Edition*) and these again are subdivided into 168 *Novellæ*, Novels, or new Constitutions, each of which consists of several Chapters.

The Civil Law how received by other Nations.

THESE four Volumes contain the *Jus scriptum* or written *Civil Law*, which, where Custom fails, is the grand Standard and Directory of all the States, Kingdoms, and Empires of *Europe*; yet is not receiv'd by any one Nation without some Addition or Alteration. For sometimes the *Feudal Law* is mix'd with it; or general or particular Customs; and often Ordinances and Statutes cut off a great Part of it.

THUS, in *Turkey* the *Justinian Greek Code* is only used. In *Italy* the *Canon Law* and Customs exclude a good Part of it. In *Venice* Custom has almost an absolute Government. In the *Milanese*, the *Feudal Law*, and particular Customs bear sway. In *Naples* and *Sicily* the

the *Constitutions* and *Laws* of the *Lombards* are said to prevail. In *Germany* and *Holland* the *Civil Law* is esteemed to be the *Municipal Law*; but yet many Parts of it are there grown obsolete, and others alter'd by *Canon Law*, or different *Usage*. In *Friezland* it is observ'd with more *Strictness*. But in the *Northern* Parts, the *Jus Saxonicum*, *Lubicense*, or *Eulmense*, is preferr'd before it. In *Sweden* and *Denmark* it has scarce any *Authority* at all. In *France* only a Part is receiv'd, and that in some Places as a *Customary Law*; and in those Provinces nearest *Italy*, the *Municipal written Law*. In *Criminal Causes* the *Civil Law* is more regarded in *France*, but the *Manner of Trial* is regulated by *Ordinances* and *Edicts*. In *Spain* and *Portugal* the *Civil Law* is corrected by the *Jus Regium*, and *Custom*. In *Scotland* the *Statutes* of the *Sederunt*, part of the *Regiæ Majestatis*, and their *Customs*, controul the *Civil Law*; which else is the *Common Law* of this Country. And, lastly, in *England*, besides the *Civil Law*, we have divers others; as the *Canon Law*, *Common Law*, *Statute Law*, *By Laws*, *Forest Law*, and *Marshal Law*, of all which more by and by.

WE can't conclude this *Historical Account* of the *Civil Law* without taking notice of the *Feudal Law*, or *Feuds*, which is a Book of *Customs* and *Services*, which *Subjects* or *Vassals* do to their *Prince* or *Lord* for the *Lands*, *Tenures*, or *Fees*, that they hold of him. The *Grant* of which is call'd the *Feud*, and he to whom it is granted the *Feudatory*. Of the Feudal Law.

THIS Book of *FEUDS* is now made the fourth Volume of the *Civil Law*, the *Institutes* being reckoned as an additional Part of the *Digest*, or first Volume. This Part was not of much use in the old *Emperors Time*; some refer the *Original* thereof to *Constantine the Great*. The *Collectors* or *Compilers* of this Volume were *Obertus de Horto*, and *Giraldus Compagistus*, *Senators* of *Milan*, who drew it partly from the *Civil Law*, and partly from the *antient Customs* of *Milan*, but without any good *Form* or *Order*. The *Learned* in this Part of the *Civil Law* are call'd *Feudists*. The Book of Feuds.

HAVING thus dispatched a concise *History* of the *Civil Law*, I come now to say something of the *Subject* about which it is conversant, and that is the

Right of Persons, Things, and Actions. viz. (1.) The Right of *Persons*. (2.) The Right of *Things*. And (3.) The Right of *Actions*. For all Kind of *Right* (which is the immediate Object of the *Civil Law*) respects one or other of these three Things, viz. *Persons*, *Things*, or *Actions*. Of which a little in Order.

Division of Persons.

Sex.

Age.

Infants.

Adolescents.

Minors.

Youth.

Manhood.

Seniors.

Health.

Compos Mentis.

Sanus Corpore.

Mente Captus.

Invalid.

Diseased.

Liberty.

Liberi.

Servi.

Ingenui.

Liberti.

Relation.

Power.

WITH regard to *Persons*, the Law makes several Divisions, as (1.) in respect of *Sex*, they are distinguish'd into *Men* and *Women*. (2.) In regard of *Age*, they are said to be *Infants* till the seventh Year; from thence to twelve in *Women*, and fourteen in *Men*, they are call'd *Adolescents*; and all under these Years are generally stiled *Minors*. Again, from thence to twenty-five they are reckon'd *Youths*; from twenty-five to thirty-five they are said to be in a State of *Manhood*. After this they begin to be number'd among the *Seniors* or *Elders*, and at sixty are *old Men* and *Women*. (3.) With respect to their State of *Health*, a Man is said to be *Compos Mentis*, when he appears to have *Understanding* and *Judgment*; *Sanus Corpore*, found in *Body*, when all the Members are found and whole; or else he is said to be *Mente captus*, disorder'd in *Mind*: An *Invalid*, when maimed or mancated in his Members; and *diseased*, when labouring under any *Sickness* or *Weakness* of *Body*, &c. (4.) Again, with regard to *Liberty*, they are distributed into *Liberi* or *Freemen*, and *Servi* or *Bond-men*, or *Servants*. The *Free-men* were again of two Sorts, viz. *Ingenui*, such as were born free; or *Liberti*, such as were made free by *Manumission*. (5.) With respect to *Relation*, the Law considers that of *Husband* and *Wife*, *Parents* and *Children*, *Brothers* and *Sisters*, with all other Degrees thereof, whether in a direct Line, by *Blood*, call'd *Consanguinity*; or by *Matrimonial Alliance*, call'd *Affinity*. (6.) With regard to *Power*, Persons are distinguished into *Princes* or *Rulers*, and *Subjects*, *Masters* and *Servants*; with various other Discriminations on various Accounts not to be here enumerated.

Now according to all these and other indifferent Capacities and Relations of Men, the *Civil Law* has made Provision that every Man in his proper Circumstances shall freely enjoy his Right, or every Thing that may be esteem'd or adjudged to be due to his Character,

Character, Station, or Quality of Life; and this is call'd the Right of Persons.

THINGS are the next Object of *Right*; the *Division of Justinian* Division of Things is threefold. (1.) Some Things are in our *Patrimony* or *Inheritance*, and some are not. (2.) Some are *common*, some *public*, some belong *universally to all*, some to *no Person*, and some to *particular Persons*. (3.) Some Things are said to be *corporeal*, and others *incorporeal*. Of these a little in Order, according to the several Titles.

Things which are of or belonging to our *Patrimony*, *Those of Patrimony* are those which we properly call our *Goods*, moveable or immoveable; the Subject of *Commerce*; and are said to be of *human Right*, and which we have Liberty to use according to our *Wills* and *Necessities*. Those Things which are not appertaining to *Patrimony*, are Things *sacred*, *religious*, and of *divine Right*.

Things which by *natural Right* are *common*, or the *Things common* common Property of all Men, are all such as are equally useful and necessary to all Men; as the *Air*, the *Sea*, *Sea-Shores*, *running Waters*, &c. also *Birds* which fly in the open *Air*, *Fishes* in the main *Ocean*, &c.

Things *public* are all such whose Property appertains to a certain People, and their Uses common to all. Under this Head therefore are *Rivers* and *Ports* in general; and therefore the *Right of Fishing* used to be free to all; as also the Use of the *Banks* is public as the *Rivers* themselves, by the *Law of Nations*. However it might be in *Justinian's Time*, 'tis certain that now the *Right of Rivers*, *Ports*, and *Fishing*, is very much restrain'd from public or free Use, by particular *Jurisdiction*.

Things are said to be *universal*, and to belong to all which are in *Cities*, as *Theatres*, *Markets*, *Courts*, *public Walks*, and all other Things proper to *Cities*, and subservient to the Uses of private Persons according to the *Municipal Laws* thereof.

Things which are properly belonging to *no Man*, *Things pertaining to none* are all such as are not the Subject of *Commerce*, nor can be said to be the *Goods* of any one, either in Regard of *Necessity* or *Use*. As, among natural Things, *Wild Beasts*, *Birds*, *Fishes*, and *Men*; and all Things of *divine Right*, as *Churches*, *sacred Utensils*, *religious Services* by *divine Institution*, and all *holy Things*.

Lastly,

Things of private Property.

Acquired by Occupation.

Accession.

Specification.

Tradition.

Lastly, Things which are the Property or the Goods of particular Men, are all such as are by *private Patrimony*, or which any particular Man may acquire the Possession of, by any Invention or Commerce, agreeable to the *Law of Nations*. Now the Dominion or Possession of Things is obtain'd in four several Ways; as (1.) By *Occupation*, which is by apprehending and taking those Things which before did properly belong to none; as *Fishing, Fowling, Hunting, &c.* by the *Law of Nations*. (2.) *Accession*, which is when any Thing in our own Possession produces an Increase, as of *Animals* by Birth, *Vegetables* by Plantation, and *Riches* accruing by Trade and Industry. (3.) *Specification*, as 'tis call'd; which is the making or constituting a *new Species* of Things from Materials before in my Property; as making Bricks of Clay, and Houses of them; making Cloth of *Flax* and *Wool*, and Garments thereof, &c. (4.) *Tradition*, by transferring or making over the Right and Property of Things from one Man to another, as in *Buying* and *Selling*, by *Donation* or *Gift*, or any other legal Way.

BUT I cannot think this a very *critical Enumeration* of the several Ways of making an *Acquisition* or *Possession* of the Right and Property of Things.

THE third Division of Things was into *Corporeal* and *Incorporeal*.

Things corporeal.

Corporeal Things are said to be all such as are *tangible*, or that may be *touched*, or that fall under the *external Sense*; as *Raiment, Money, Land, Man*, and all other Things moveable and immoveable.

Incorporeal.

Incorporeal Things are such as can neither be *seen* nor *touch'd*, but are Objects only of *Intellectual Perception*; as *Rights* and *Privileges, Services, Obligation, and Uses* of Things: Concerning all which *Civilians* discourse very largely under various Titles and Questions relating to each; and every Case of Things *Corporeal* and *Incorporeal* is discuss'd, explain'd, and stated according to the Tenor of *Civil Right*; and this is call'd the *Right of Things*.

The Right of Actions.

Action, what.

THE *Right of Actions* is the third Object of *Civil Law*. *Action*, as *Civilians* define it, is nothing but the *Right of proceeding in Judgment to obtain what is due*; that is, it is a *Power* or *Faculty* of acting in such Ways, that a Person, in Courts of Judicature, may

may ask or demand of the Judge that which ought to be given or restored to him: And this *Form* or *Process* of obtaining, or defending one's Right at Law, is call'd *the pleading a Cause*; and the whole Affair is call'd an *Action, Cause, Prosecution, or Suit* at Law indifferently.

Actions receive a large Division among *Lawyers*, *The Kinds of* the principal Kinds of which are these: (1.) *Personal Action*: *Actions*; these are all such whereby a Man claims *Personal*. *Debts*, or other *Goods* and *Chattels*, or *Damages* for them; or for *Wrong* done to his *Person*. (2.) *Actions Real*. *Real*; these are all such as concern the *Right* of *Things*, as when the *Plaintiff* claims Title to *Land*s, *Tenements*, *Rents*, or *Commons* in *Fee-Simple*, *Fee-Tail*, or for *Term of Life*. (3.) *Actions Civil*; these *Civil*. are all such as proceed from *legitimate* and *civil Causes*, as when a Man sues for his *Due* by *Covenant*, *Contract*, &c. as *Money lent*, &c. (4.) *Mixed Mixed*. *Action*, viz. that which is party *personal*, and partly *real*, or wherein the *Right* of *Persons* and *Things* are both concerned; as when a *Suit* is given by *Law* to recover the *Thing* demanded, and *Damages* for the *Wrong* sustain'd. (5.) *Action Penal* is such an one as *Penal*. aims at some *Penalty* or *Punishment* in the *Person* sued, either *corporeal* or *pecuniary*. (6.) *Action Popular*. *Popular* is that which is upon the *Breach* of some *Penal Statute*, which any *Man* that will may sue for himself and the *King*. (7.) *Action of a Writ* is when *Of a Writ*. the *Defendant* pleads some *Matter*, by which he shews the *Plaintiff* had no *Cause* to have the *Writ* which he brought. (8.) *Action upon the Case* is a *Writ* brought *Upon the Case*. against any one for an *Offence* done without *Force*, and by *Law* not specially provided for. (9.) *Action Upon the Sta-* *upon the Statute* is an *Action* brought against a *Man* *tute*. upon an *Offence* against a *Statute*, whereby a *Penalty* is laid for so doing. (10.) *Action Auncestal*, that *Auncestal*. which we have by some *Right* descending from our *Ancestors*.

THEY who would see these Subjects treated of at *Of the Laws* large, may consult the Works of *Civilians*, and espe- *of England*. cially those who have wrote upon the *Imperial Institutions*; as *Antonius Perezius*, and *Cowel's Institutes of the Laws of England*. I shall now proceed to specify the several Kinds of *Laws* now in Use in *England*, and

and the Methods of Proceeding in Courts of Judicature thereby. These Laws are

*The Civil
Law.*

THE *CIVIL LAW*, of which we have spoken enough already. Use is made of this Law in all *Ecclesiastical Courts*, *Courts of Admiralty*, and *Court of the Earl-Marshal*. Also this Law is made use of in *Treaties* with foreign Potentates. And, lastly, both the *Universities* serve themselves of the *Civil Law*; for, by their Privileges, no *Student* is to be sued at *Common Law*, but in the *Vice-Chancellor's Court*, for *Debts*, *Accounts*, *Injuries*, &c.

*The Common
Law.*

THE *COMMON LAW*; this is a Compendium of the best and most antient *Saxon Laws* first made by *Ethelbert*, the first *Christian King of England*. These Laws King *Alfred* afterwards reduced into one Body, Codex, or Volume of Laws; and being made to extend equally to the whole Nation, it was very properly call'd, in the *Saxon Tongue*, *The People's Right*, i. e. the *Common Law*: And this *Codex* was probably the same with the *Dom-bec*, or *Dome-Book*, whereby, in all subsequent Reigns of the *Saxon Race*, they administer'd Justice, and determin'd Causes. These Laws were not so much observed by *Harold I.* and *Hardicanute*, as being Usurpers of the *Danish Race*. *Edward the Confessor*, being of the *Saxon Race*, restored those Laws, and out of all then extant made a Collection of the best, and order'd them to be observ'd, as *Alfred* had done before him. This Body of *Folk-Right*, or *Common Law*, was not so much alter'd by the *Normans* in Substance as in the Names of Things; for even *William the Conqueror* publish'd them as the Laws of *Edward the Confessor*, confirm'd and proclaim'd them to be the Laws of *England*, and took an Oath to keep them inviolable. In the Reign of *Henry I.* the old written Laws were revised, and others added to them, which together made a Summary of all the *Rights* and *Privileges* of the People of *England*, and was call'd the *Magna Charta*, or Great Charter of *English Rights*. This was afterwards confirm'd by King *John*, and again confirm'd and augmented by *Henry III.* and other Kings after him. Such is the Original, and from thence is derived the Body of the *Common Law* now in Use.

*Magna
Charta.*

*Of the Statute
Law.*

STATUTE LAW is that which consists of *Statutes*, *Acts*, and *Ordinances* of King and Parliament; the

the Manner of making which has been already related. This Law provides for all Cases wherein the *Common Law* is silent: And this is most properly call'd the *English Law*, as being made at the Desire and Request of *English People*.

CANON LAW. The Canons of many ancient *Of the Canon General Councils*, of many *National and Provincial Law. Synods*, besides divers Decrees of the Bishop of *Rome*, and the Judgments of *antient Fathers*, had been received by the Church of *England*, and incorporated into one Body of *Common Law*; by which she always proceeded in the Exercise of her Jurisdiction, and doth still by virtue of the Statute 25 *Hen. VIII.* so far as the said Canons and Constitutions are not repugnant to the *Holy Scriptures*, the King's *Prerogative*, or the *Laws, Statutes, and Customs* of the Realm: But this has come under some Regulations of late by *Statute Law*.

MARTIAL LAW; this depends upon the *Of the Martial King's Will and Pleasure*, or his *Lieutenant's*, in *Law.* time of actual War; for on account of sudden Dangers, and casual Emergencies of War, the King useth an absolute Power, inasmuch as his Word goes for a Law. This Sort of Law extends only to *Soldiers* and *Mariners*, hath Being only in time of War, and then and there only where the King's Army is on Foot. This Law also is very much regulated by *Statute Law*.

FOREST LAW; this consists of Laws relating *Of Forest Law,* to *Forests*, which are peculiar and different from the *Common Law*. The *Forest Laws* are particularly express'd in the *Charta de Foresta*, or Charter of the *Forest*. All Offences committed in *Forests* and the *Parks* of Noblemen are punished with Severity; and *Deer-Stealing* is now made *Felony*, and punishable with Death.

LAW of CUSTOM. In divers Parts of *Eng-* *Of Custom.* *land* there are some peculiar *Customs* that have the Force of *Common Law* among the People to whom they belong: As *Burrough-English*, a Custom peculiar *Burrough-* to *England*, whereby the younger Son, or, in want *English.* thereof, the younger Brother is to inherit. Also *Gavel-kind* is a Custom peculiar to the People of *Kent*, *Gavel-kind.* the Privileges of which are threefold: (1.) The Male Heirs share all the Lands alike. (2.) The Heir at fifteen

fifteen is at full Age to sell or alienate. (3.) Tho' the Father be convicted of Treason, yet the Son enjoys the Inheritance: Hence the Proverb, *The Father to the Bough, and the Son to the Plough*. These Privileges they received by Grant from *William the Conqueror*.

By-Laws.

MOREOVER by the King's Royal Charter, granted to divers Cities in *England*, the Magistrates have a Power to make such Laws as may be beneficial for the Citizens, and not repugnant to the Laws of the Land; and these are binding only to the Inhabitants of the Place, unless they are for *general Good*, or against a *general Inconvenience*, for then they bind *Strangers* also.

The Manner of Procedure in Courts of Judicature.

THE Manner of Procedure in all *Suits, Causes, or Trials of Common and Statute Law*, is as follows:

Grand Inquest or Jury.

Of Persons indicted.

THE Sheriff summons twenty-four Men, either *Gentlemen* or the better Sort of *Yeomen*, chosen indifferently out of the County: These, at the Opening of every Quarter-Sessions, are sworn to enquire into the Nature of the Facts contain'd in all the *Bills of Indictment* preferred to the Court: If they find the Bill to be *true*, they write on it *Billa vera*, and the Person therein named is *indicted*; but if they do not find it true, they write on the Backside *Ignoramus*: And this is called the *Grand Inquest* or *Jury*.

Outlawry, what.

THE Person indicted at the Quarter-Sessions is sought after, taken, and sent to *Prison*, if he can be found, that he may be convicted or cleared of the Matter of which he is indicted at the next *Affizes* held for that County. If the Sheriff cannot find him, Process is made out against him to surrender himself *Prisoner*, or else to be *outlaw'd*. So he is call'd upon three several Session-Days running to render himself up to the Law; the fourth is call'd the *Exigent*, when, upon his *Non-appearance*, he is *outlaw'd*. And this *Outlawry* consists in his being divested of the Benefit and Protection of the Laws of the Land, excluded from the Number of the King's Subjects, and the Confiscation of all his Goods to the King.

Of Trials at Affizes.

AT the ensuing *Affizes* the Persons indicted are brought to their Arraignment in the Court at the Bar before the Judge: If no Man appear to prosecute the indicted

indicted Person, he is acquitted directly; if Prosecutors appear, they have Witness to attest and declare the Matter against the Prisoner. The *Sheriff* hath impanell'd in Readiness an Inquest of *twelve Men*, call'd the *Petty Jury*; these are placed near the Prisoner to hear and attend the *Charge*, the Pleadings of the Lawyers on both Sides, and the Defence which the Prisoner can make: They also ask what Questions they please of the Witness; and when all the Witnesses are examined, and the Pleadings are all over, one of the Judges briefly recapitulates all that has pass'd, putting the *Jury* in mind of what has been alledg'd and defended on either Side, and informing them what Points are according to Law, and what not: After which the *Jury* are bid to retire by themselves, an Officer being charged with them to see that they have neither *Meat, Drink, Fire, nor Candle*, that they may sooner conclude their Opinions, which must be *unanimous*. When they are agreed, they come back into Court, and desiring their *Foreman* (*i. e.* the first upon the List) may speak for them, he declares, in few Words, the Opinion of all the *Jury*, they being all of one Mind, or else to be remanded back to their Confinement till they can agree. Their *Verdict* in criminal Causes is *guilty, or not guilty*; and in civil Actions the Form is *finding the Bill for the Plaintiff or Defendant*.

When a Person is indicted and found guilty of a Capital Crime, the Judge proceedeth to give Sentence according to this Form, *viz.* Thou *N. M.* hast been indicted of such a *Felony, &c.* and therefore arraign'd; thou hast pleaded *not guilty*, and put thyself upon God and thy Country; they have found the guilty; thou hast nothing to say for thyself; the Law is, *Thou shalt return to the Place from whence thou camest; from thence thou shalt be carried to the Place of Execution, there thou shalt be hanged by the Neck till thou be dead.* Then he saith to the Sheriff, *Sheriff, do Execution.*

*The Manner
of pronouncing
Sentence.*

ALL Crimes in England that are Capital, or touch the Life of a Man, are of three Kinds, *viz.* (I.) *High-Treason*, which comprehends all Attempts against the Security, Safety, and Peace of the King, or any of the Royal Family; as also against the Government and Constitution; also Clipping, or Coining

*Of Capital
Crimes.
High-Treason.*

petty-Treason. false Money, Counterfeiting the King's *Privy-Seal*, &c. (2.) *Petty-Treason*; this is when a Man kills his Master, a Wife her Husband, a *Secular* his Prelate, to whom he owes Faith and Obedience. (3.) *Felony*; this comprehends *Murder*, *Larceny* or *Theft*, *Sodomy*, *Buggery*, *Rapes*, *Firing Houses*, &c.

The Punishment of Traitors.

THE Punishment of *High-Treason* is by Law thus appointed: The *Traitor* shall be drawn on a Sledge to the Gallows, there hang'd by the Neck, presently cut down alive, his Bowels instantly taken out of his Belly, and burnt before his Face; then his Head shall be cut off, his Body divided into four Parts, and the whole hung up or impal'd where the King shall command. Besides all this his *Lands* and *Goods* are forfeited, his Wife loseth her *Dowry*, and his Children their *Nobility*, and all Right of Inheritance from him or any other *Ancestor*.

For Petty Treason.

FOR *Petty-Treason* the Punishment is to be drawn on a Sledge and *hanged*, for a *Man*; but for a *Woman*, to be drawn and burnt alive, tho' it be usual to strangle them first at the Stake. All *Felonies* are punished with *Hanging only*, as before said. But the King has the Prerogative of shewing *Mercy* to *Felons* in reprieving them from Death, either for Pardon, Transportation, &c.

Beheading for a Peer.

IF a *Peer* of the *Realm* commit *High-Treason*, *Petty-Treason*, or *Felony*, altho' his *Judgment* be the same with that of common Persons; yet the King doth usually extend so much Favour to such, as to cause them only to be beheaded with an Ax on a Block lying on the Ground, and not, as in other Countries, by a *Sword*, kneeling or standing.

The Punishment of a mute Person. Peine forte & dure.

IF a *Criminal* indicted of any capital Crime refuseth to plead, or put himself upon a *legal Trial*, then, as *mute* and *contumacious*, he is presently to suffer the horrid Punishment call'd *Peine forte & dure*, or *Pressing to Death*, by extending him on his Back, naked on a Floor, and laying on his Body Iron or Stone, as much or more than he can bear. The next Day he is to have *three Morsels of Barley Bread* without Drink; and the third Day he is to have Water next the Prison-Door (except Running Water) without Bread; and this shall be his Diet till he die. But the *English*, naturally abhorring *Cruelty*, generally charge

charge the Criminal with so much Weight at once, as causes him to expire presently.

THUS much for the *Laws of England*, which are undoubtedly the best in the World for the *Mercy* and *Equity*, as well as the *Justice* of them; one thing only is to be wish'd, that the *Benefit* of them might be had with less *Difficulty*, and that the *Marks* of a *corrupt Commonwealth* were less visible in their *Bulk* and *Multiplicity*.





Of HERALDRY.

HERALDRY
defined.



HERALDRY is the Art of *Blazoning* or displaying Coats of *Arms* in proper Colours and Metals; and is therefore also call'd *Armory*; and Persons well skill'd therein, *Heralds* or *Armorists*. This Art consists of two great Parts, *viz.* *Blazon* and *Marshalling*.

Blazon.

BLAZON is the Explication of *Coat-Armour* in such apt and significant Terms, that the Virtues and Merits of the first Bearers may thereby be known; and this is done by expressing what the Colours, Figures, Postures, Positions, &c. of Things borne in the *Coat-Armour* do import; for they are all of them Symbolical Representations or Ensigns of the Virtues and Qualities of the Persons to whom they were granted.

Marshalling.

MARSHALLING is the orderly Disposition of several Coats, belonging originally to divers Families, within one *Shield* or *Escutcheon*, together with all the Armorial Ensigns, Ornaments, and Decorations belonging thereto, in their proper Places without the *Escutcheon*.

*The Shield or
Escutcheon.*

THE *SHIELD* or *ESCUTCHEON*, call'd by the Antients *Scutum*, is the principal Thing whereon Figures, as Emblems, are now painted by all Nations. As to its *Shape* and *Position*, there being no established Rule concerning them, they are never mentioned in *Blazoning*.

The Field.

THE *FIELD* is the whole Surface or Space within the bounding Lines of every *Shield* or *Escutcheon*, and retains such honourable Marks as antiently were acquired in the *Field of Battle*, being of the Tinctures and Metals received in the Science of *Heraldry*; and are call'd

Arms, what.

ARMS, which are all those Figures and Characters with which the Field of the *Escutcheon* is charg'd,

and

and are expressive of the Degree, Merit and Quality of the original Bearers. These are taken from all Parts of the Creation ; as *Angels, Men, Beasts, Fowls, Fishes, Insects, Celestial Bodies, Trees, Herbs*, and all *Artificial Subjects*. The several Parts, Postures, Positions, and Tinctures of which are also to be regarded, as being very significant in *Coat-Armory*.

THE POINTS or Parts of an *Escutcheon* are nine, viz. (1.) Three on the upper Part, in an horizontal Direction ; of which the middle Point is call'd the *Chief* ; that on the right Corner, the *Dexter Chief* ; and the other in the left Corner, the *Sinister Chief*. (2.) Three Points perpendicularly situated in the middle Part of the *Shield* ; of which the first is call'd the *Collar* or *Honour Point* ; the second, the *Heart* or *Fefs Point*, as being exactly the middle Point of the Field ; the third is call'd the *Nombril* or *Navel Point*. (3.) Three Points horizontally at the Bottom of the *Shield* ; of which the middle one is call'd the *Base Point* ; the other two the *Dexter* and *Sinister Base Points*. Now the Charges are of different Importance, as they are placed differently in these Points of the *Shield* ; and therefore their Situation, as to the Points, ought to be carefully mention'd in blazoning a *Coat of Arms*, unless in a few special Cases.

The Points of an Escutcheon.

TINCTURES are next to be considered in *Armory* ; they are those *Armorial Colours* with which the Ensigns and Charges of *Coat-Armour* are painted. Those used in *Heraldry* are of three Sorts, viz. (1.) *Metals*, as *Or*, *Gold* ; and *Argent*, *Silver*. (2.) *Colours*, as *Azure*, *Gules*, *Sable*, *Vert*, *Purpure*, *Tenne*, and *Sanguin*. (3.) *Furs*, the principal of which are two, viz. *Ermine* and *Vair* ; besides which are several others, as *Ermines*, *Erminois*, *Erminites*, *Pean*, *Contre-Vair*, *Potent*, *Varry*, &c.

Of Tinctures.

Metals, Colours, and Furs.

IN Blazoning, these Colours are differently term'd according as the Bearers are *Private Gentlemen*, *Nobles*, or *Princes* ; for they are call'd *Tinctures* in the Arms of *Gentlemen* ; *precious Stones* in those of *Noblemen* ; and *Planets* in those of *Emperors*, *Kings*, and *Sovereign Princes*. The particular Names of which, in each Case, are seen in the following Table.

The different Blazon of them for different Degrees of Men.

Colours.	Gentlemen.	Noblemen.	Sovereigns.
	Tinctures.	Precious Stones.	Planets.
Yellow.	Or.	Topaz.	<i>Sol</i> ☉
White.	Argent.	Pearl.	<i>Luna</i> ☾
Black.	Sable.	Diamond.	<i>Saturn</i> ♄
Red.	Gules.	Ruby.	<i>Mars</i> ♀
Blue.	Azure.	Sapphire.	<i>Jupiter</i> ♃
Green.	Vert.	Emerald.	<i>Venus</i> ♀
Purple.	Purple.	Amethyst.	<i>Mercury</i> ☿
Orange Colour.	Tenne.	Jacinth.	<i>Dragon's Head</i> ☊
Murry.	Sanguin.	Sardonyx.	<i>Dragon's Tail</i> ☋

THE two last Tinctures, viz. *Tenne* and *Sanguin*, are counted *Stainant*, or *Stains* rather than *Colours*, and therefore are rarely or never used for the Fields of *Coat-Armour*, but with *Abatements*, to express some *Disgrace* or *Blemish* in the Bearer.

How repre-
sented in
Print.

THESE *Colours* are represented on Copper-Plate Prints by Points and Hatches variously posited, as follows. (1.) The Metal *Or* is known by small *Pricks* or *Points* over all the Field or Charge. (2.) The Metal *Argent*, by the natural Whiteness of the Paper, without any Strokes or Points. (3.) *Azure*, by Hatches or Strokes across the Shield from Side to Side. (4.) *Gules*, by Lines from Top to Bottom. (5.) *Sable*, by Hatches crossing each other. (6.) *Vert*, by Hatches from *Dexter Chief* to *Sinister Base*. (7.) *Purple*, by Hatches from *Sinister Chief* to *Dexter Base*. (8.) *Tenne*, by cross Hatches from Right to Left, and from Left to Right. (9.) *Sanguin*, by Hatches from Right to Left, and others from Side to Side.

Metal and
Colour always
go together.

IN the Composition of Arms, *Metal* and *Colour* always go together, to represent them at the greater Distance. For *Metal* must never be placed upon *Metal*, nor *Colour* upon *Colour*, by the Rules of *Heraldry*. Thus if the Field be *Azure*, the immediate *Charge* must be either *Metal* or *Fur*. For Example,——The Field is *Azure*, Fretty *Argent*, on a Fess *Gules*, three *Leopards Faces Or*.——So that here is first *Colour*, (*Azure*) then *Metal*, (*Argent*) and then *Colour*, (*Gules*) and again *Metal*, (*Or*.) In all Coats of Arms there must be *two Tinctures* at least; and no Coat is accounted good that has not one of the *Metals*.

THE

THE *Shield* thus covered with some or other of *Of Charges.* these *Metals*, *Colours*, or *Furs*, there is then (rarely otherwise) some Charge laid upon it, which are of two Sorts, *viz.* Proper and Common. Proper Charges are those which more peculiarly belong to this Art, and these are call'd *Ordinaries*, of which there are nineteen in Number ; of these nine are call'd

HONOURABLE ORDINARIES ; which *The nine honourable Ordinaries.* are as follow.

1. The CROSS	} Whole Content is	5. Part of the Shield uncharged, else 3d Part.
2. The CHIEF		3. Part, horizontally on the Top.
3. The PALE		3. Part, perpendicularly in the Middle.
4. The BEND		5. Part charged, from <i>Dex. Chief</i> to <i>Sin. Base</i> .
5. The FESS		3. Part, horizontally across the Middle.
6. The INESCUTCHEON		5. Part, in the Middle, a little Shield.
7. The CHEVRON		5. Part, an Angle on the <i>Dex.</i> and <i>Sin. Base</i> .
8. The SALTIER		5. Part charged, like St. Andrew's Cross.
9. The BAR		5. Part, placed like a <i>Fess</i> .

THE ten less honourable Ordinaries are, (1.) The *The ten less honourable ones.* Gyron, form'd singly by two Lines drawn from the Sides to the *Fess* Point of the Shield ; but they are borne generally many together, as six, eight, &c. (2.) The *Orle* ; it consists of a Border only, like that of an *Escutcheon*, the inner Part, or Area, being void. (3.) The *Pile* ; it is broad at Top, like the *Pale*, and ends in a Point or Angle at Bottom. (4.) *Quarter Dexter*, and (5.) *Quarter Sinister* ; they contain a fourth Part of the Field, at the right or left Side at Top, as the Name imports. (6.) *Canton Dexter*, and (7.) *Canton Sinister* ; these differ in nothing from the Quarter, but in being less and peculiar to the *Gentry*, whereas the Quarter is proper to *Nobles* only. (8.) The *Flanch*, (9.) The *Flasque*, and (10.) The *Voider* ; these three are *Segments of Circles*, from the Top to the Bottom of the Shield, on each Side one ; for they are always borne by Pairs. The *Flanch* is biggest, the *Flasque* next, and the *Voider* least of all.

The Signification of the nine honourable Ordinaries

THESE honourable Charges are all of them of important and distinct Signification, as follows. (1.) The *Cross* signifies *Afflictions* for the Cause of Religion, and was antiently used by *Christians* for *Ensigns* in the *Holy Wars*, &c. (2.) The *Chief* denotes the first Bearer was a Person in *Authority*, or Place of *Command*, when he received his Coat by his *Desert*. (3.) The *Pale* imports him skill'd in *Mining*, and such like profitable Arts. (4.) The *Bend* shews him to have been valiant in War, and one who mounted on the Enemy's Walls. (5.) The *Fess* denotes him a worthy General or Leader of an Army. (6.) The *Inescutcheon* shews him to be one who won his Enemy's Arms. (7.) The *Chevron* declares him to have been the Promoter and Top of his Family; and the Projector or Finisher of some great Work; and the Shelter, &c. of his Family. (8.) The *Saltier* implies he behaved honourably at some Siege, and did some valiant Exploits against the *Picts* and *Scots*. (9.) The *Bar* shews him to have been serviceable in raising Batteries or Fortifications, to the Detriment of the Enemy, and Security of his Prince's Army.

Of the others also.

THE other less honourable Ordinaries have also their proper Significations. Thus (1.) The *Gyron* is a Note of *Unity* and *Reconciliation*. (2.) The *Orle* shews the first Bearer so valiant, as to fight till his Shield was hewn through. (3.) The *Pile* shews him to have been excellent in Fortifications, and rich in Buildings. (4.) The *Quarter* and *Canton* shew the first Bearer to receive an Augmentation from the King, for some eminent Service done; or that he won his Enemy's Shield. (5.) The *Flanch* and *Flasque* both shew him to have been true and trusty to his Prince in the Service he was employ'd in by him. And (6.) The *Vorder* is the proper Reward for a Woman for the like Services done.

The Subdivision of Ordinaries.

MANY of the principal Ordinaries have a Subdivision into some lesser Parts, which are the Diminutive of that *Denomination*. Thus the *Bend* hath derived from it the *Bendlet*, containing half the Breadth of the *Bend*; the *Garter* half the Breadth of the *Bendlet*; the *Cost* half the *Garter*; and the *Ribband* half the Breadth of the *Cost*. The *Bend Sinister* hath the *Scarp* or *Scarf* half its Breadth; and a *Baton* or *Truncheon*, a fourth Part of its Breadth. The *Chief* hath

hath its *Fillet* a fourth Part of its Breadth. The *Pale* gives Derivation to the *Pallet* half its Breadth ; and the *Endorse* a fourth Part. The *Chevron* hath the *Chevronel* half its Breadth ; and the *Couple Clofe* a fourth Part. From the *Bar* is derived the *Clofet* half the Breadth ; and the *Barrulet*, a fourth Part. *Note*, An *Endorse*, *Couple Clofe*, and *Barrulet*, are not borne in *Coat-Armour* singly, but by Pairs always with their Principal between them.

THE Lines which compose or bound these Charges have divers remarkable Forms, which are esteemed as additional Notes of Distinction ; and are as follow.

Of the Form of the Lines bounding the Charges.

- | | |
|---|--|
| 1. <i>Invected</i> , the Points going into the Charge | |
| 2. <i>Ingrailed</i> , the Points going into the Field | |
| 3. <i>Waved or Undee</i> ————— | |
| 4. <i>Nebulee</i> ————— | |
| 5. <i>Crenelle</i> or <i>Imbattel'd</i> ————— | |
| 6. <i>Raguled</i> or <i>Ragulee</i> ————— | |
| 7. <i>Indented</i> ————— | |
| 8. <i>Dauncette</i> ————— | |
| 9. <i>Patee</i> or <i>Inclave</i> ————— | |
| 10. <i>Champaine</i> ————— | |

IN *Blazon*, if the Out-lines of the Charge be plain or *strait*, then the Charge is barely named, and no

How to be named.

Mention made of its Lines ; but if the Lines which constitute the Charge, be of any of the foregoing Forms, they are always mention'd in *Blazoning* ; as, —He bears Azure, a *Chief* invected, —a *Pale* ingrail'd, —a *Fess* indented, &c.

THE *Field* of the *Escutcheon* is generally divided into two or more equal Parts by Lines variously posited across the same, which Partition must be first mentioned in *Blazoning*, according to the Place of the Ordinary which the said Line or Lines possess. Thus if a Line perpendicular to the Horizon divide the *Shield* equally, it is said to be parted per *Pale* ; if the Line be parallel to the Horizon, it is parted per *Fess* ; if from *Right* to *Left*, it is parted per *Bend* ; and so of any other.

Of the Partition of the Field.

If the *Field* be divided into several equal Parts alternately, of *Metal* and *Colour*, or *Fur*, then it is said to be *Pally* or *Pale-ways*, *Bendy* or *Bend-ways*, *Barry* or *Bar-ways*, &c. according as the parallel Lines were in a Position agreeable to that of the *Pale*, *Bend*, *Bar*, &c. Moreover, the *Field* is divided into several equal Parts by two of those Ways at once, as by Parallel Lines from *Top* to *Bottom*, and *Right* to *Left* interchangeably; and then it is blazon'd *Pally-Bendy* of six, eight, &c. Pieces; and thus otherways you have *Barruly-Bendy*, *Barry-Piley*, &c. Also when Figures are placed in the Part or Direction assign'd to any of the Ordinaries, as the *Pale*, *Bend*, &c. they are then said to be borne in *Pale*, *Bend*, &c. Thus much for *Proper Charges*.

Of Common Charges.

COMMON CHARGES are all those Figures which (besides the *Proper Charges* mentioned) are painted in *Coat-Armour*, or within the Field of the *Escutcheon*; they are taken from every Tribe of Beings, both *Natural* and *Artificial*. Concerning these a few Things must suffice here.

Angels.

ANGELS, *Cherubims*, &c. of the heavenly Inhabitants, or any Part of them, denote great *Celerity* in Business, and the *Messengers* of Peace and happy News.

Men.

MEN are honourable Ensigns in *Coat-Armour*, as (1.) *Saints* borne shew the first Bearer was some *Bishop*, *Abbot*, &c. who built or ruled some Place dedicated to such a *Saint*. (2.) *Heads* shew him to have done Service against those People whose Heads are represented, as the *Saracens*, *Turks*, *Moors*, &c. (3.) *Hands* or *Arms* signify *Strength* and *Fortitude* in the Bearer. (4.) *Eyes* denote his excellent Judgment and Apprehension. (5.) *Legs* and *Feet* shew him to have been swift to pursue his Enemies, and are Emblems of *Support* and *Assistance*; as, (6.) The *Heart* is of *Knowledge* and *Understanding*.

Beasts.

OF BEASTS, (1.) Those of *Prey* are more honourable than Beasts of *Chase*. (2.) The *Male* is more honourable than the *Female*. (3.) They which are *gilt* are less honourable than such as are not. (4.) The *Whole* is nobler than any of the *Parts*. (5.) The natural or proper Colour of the Beast is better than any other. (6.) The *free* and *regular* Posture than the *irregular* and *constrained*; as *chained*, *muzzled*, and the like

like. (7.) Of the Parts of Beasts, the Heads are most honourable, and shew the first Bearer to have been the *Head of an Army*, and to have taken or destroyed some *General of the Enemy*. (8.) Next Beasts of *Prey* are the *Unicorn, Horse, Bull, Ram, Goat, Hart, &c.* all whose Heads are severally more honourable one than the other, as they are named. (9.) Next the *Head* are the *Legs, Paws*, and then the *Tails of Lions*. (10.) Next *Mounts*, as *Griffins, Wiverns, &c.* are so honourable as real and natural Creatures. (11.) The *Postures* of Beasts of *Prey* are of great Account in Heraldry, and have particular Names, as *Couchant*, lying down; *Passant*, walking; *Combatant*, fighting; *Rampant*, rear'd on his hind Legs to fight; *Saliant*, leaping at; *Guardant*, looking towards you; *Regardant*, looking back or behind him; *Dormant*, sleeping; *Seiant*, sitting with the Fore-feet strait before them; *Endorsed*, two in a rampant Posture with their Backs towards each other; with many other Terms of less note: All which are significant and emblematical.

OF *BIRDS* borne in Arms, (1.) The *Female* is *Birds.* more honourable than the *Male*, except the *Cock*. (2.) Their *native* Colours are better than *artificial*. (3.) Birds of *Prey*, as *Eagles, Falcons, &c.* are most honourable. (4.) Birds of *Prey* and *Flight* are better *Volant*, or flying, than *Close*. (5.) *Poultry* and all *Water Fowl* are best *Close*; also the *Martlet*: In other Things they agree with *Beasts*. (6.) The *Heads* of *Birds* come next the *Whole* in Honour; then the *Feet* or *Talons* of *Birds of Prey*; after them the *Legs*, the *Wings*; and last of all the *Feathers*.

OF *FISHES*, (1.) The *Dolphin* is the principal, *Fishes.* and is best in Heraldry when *embowed*. (2.) The most honourable Bearing of *Fish* is *Nayant*, or swimming; the next *Springing*; and then *Hauriant*, or in an exact Posture. (3.) The *Parts* of *Fishes* are seldom borne, except the *Head* and *Shells*.

INSECTS are very rarely borne in Parts. *Insects.* Among them the *Ant* denotes Industry and a provident Mind; the *Bee*, a laborious and beneficent Person, with generous Courage and Passion; the *Serpent* shews the first Bearer to have been a close, subtle, and formidable Person; and so of others.

*Celestial
Bodies.*

AMONG the *CELESTIAL BODIES*, (1.) The *Sun* is the chief, and is an Emblem of *Glory*, *Splendor*, and *innate Worth* in the first Bearer. (2.) The *Moon* shews a Disposition to do good by a *Virtue* or *Power* derived from some more eminent Person, and is augmented or abated according to the different Phases of the Moon: For, (3.) The *Crescent*, i. e. the Moon increasing, shews a younger Family, who, in all Probability, may rise to greater *Glory*. (4.) The *Full Moon* denotes the Height of *Glory* in a Family: And, (5.) The *Decrescent*, or waning Moon, the Declension of a Family. (6.) The *Planets* shew *Power* and *Influence* of Persons in *higher Spheres* over their *Inferiors*. (7.) The *Stars* are a Note of *Eminency*, and given for some great *Knowledge* in the *Arts* and *Sciences*. (8.) *Clouds* shew *Honour* and *Eminency*, but withal *Uncertainty*.

Vegetables.

OF *VEGETABLES*, (1.) *Timber Trees* are preferred before others, and among them the *Oak* is the first in Esteem. (2.) Of *Flowers*, the *Rose* is first, the *Thistle* next, then the *Fleur-de-Lis*, and lastly the *Lilly*. (3.) *Plants cultivated* are better or more honourable than those which grow *wild*. (4.) Of the *Parts*, the *Branches* are first in *Armorial Honour*, the *Fruit* next, then the *Leaves*; after them the *Stumps* and *Roots*; and last of all the *Trunks*. These all bear Part of the same Signification with the *Tree* to which they belong.

*Artificial
Things.*

OF *Artificial Things* there are so many, and such Variety of this Sort of Bearing, that only large Treatises of *Heraldry* can be consulted on this Head for Information, since there are scarce any Parts or Effects of *Arts* and *Sciences*, but what are made use of for *Arms* or *Ensigns* of *Coat-Armour*: And therefore I shall only farther observe, concerning all *Common Charges* in general, that they are *significative* of such *Qualities* and *Virtues* in the first Bearers, as are most peculiar and remarkable in themselves in the vulgar Account, as is pretty plain from the few Examples above-mentioned.

*Of the Distinction
of Houses*

To the Intent that *Coat-Armour* might descend to Posterity with Safety, and free from Strife, *Distinctions* were invented: And as in *Britain* there has been a threefold Difference of Relation observed, viz. that of *Chiefs*, *Consanguinity*, and *Strangers*, so their Differences







ferences of Armorial Bearings are of three Kinds, viz.

THE *CHIEFS* or *HEADS* of Families or Houses bear two Sorts of *Charges* for their Difference or Distinction: (1.) A *Label* of three Points, or *File* of three *Labels*, which is sometimes plain, and sometimes charged. (2.) *Borders*; which are either plain, compound, indented, ingrailed, invected, quartered, charg'd, &c.

Charges for Heads of Families.

FOR *CONSANGUINITY*, or Kinsmen, the Differences are according to the Branch of a Family from whom they originally descended.

For the First Family.

Thus the	{	First Son	}	bears	A Label with three Points —	
		Second Son			A Crescent ———	
		Third Son			A Mullet ———	
		Fourth Son			A Martlet ———	
		Fifth Son			An Annulet ———	
		Sixth Son			A Fleur-de-lis ———	

Now since these are the Bearings of Distinction for Persons of the *First House*, those of the *Second House*, which is the Family of the second Son, will have their Distinctions as follow:

For the Second Family.

The	{	Eldest Son	}	beareth a Crescent with	A Label	}	upon it.
		Second Son			A Crescent		
		Third Son			A Mullet		
		Fourth Son			A Martlet		
		Fifth Son			An Annulet		
		Sixth Son			A Fleur-de-lis		

IN like manner the Sons of the *Third House* bear those Differences respectively on a *Mullet*, the *Fourth House* on a *Martlet*, the *Fifth House* on an *Annulet*; and the Sons of the *Sixth House* bear them on a *Fleur-de-lis*. And tho' there be Differences for every Son, yet

yet there are none for *Daughters*, for they are all deemed equal in point of Honour.

For Strangers. **STRANGERS** bear for Differences *Bends, Fesses, Barrulets, Chevrans, Pales, Quarters, &c.* and with these they bear their Arms lawfully and without Injury to any.

WHAT we have hitherto said relates to bearing Arms in an honourable Way, or for *Honour* and *Renown*; but there is another Kind of Bearing Coat-Armour, which tends to *lessen* and *abate* the *Honour* and *Reputation* of the Bearers; and these are therefore call'd

Of Abate-ments.

ABATEMENTS of Honour, or Badges of Disgrace, and are such accidental Marks or Notes annex'd to Coat-Armour which imply some ungentleman-like, dishonourable, or disloyal Demeanor, Quality, or Stain in the Bearer, whereby the Dignity of the Coat-Armour is greatly abated; and are what we vulgarly call a Blot in their Escutcheon.

Nine several Sorts.

OF these *Abatements* *Armorists* reckon nine, which are evermore of some one of the *Stainant* Colours, viz. *Tenne* or *Sanguin*, and always uncharged. (1.) The first is a *Delf* (or *Square Turf*) placed in the Middle of the *Field*, else it is not a Blot: It is given to one that *revoketh his Challenge*, as if *Dirt* were thrown in his Face. (2.) An *Inescutcheon reversed* in the Middle of the *Field*: It is given to him that discourteously intreats a *Maid* or *Widow* against her Will, and to him that flies from his Arms in War. (3.) A *Point parted Dexter*, i. e. when the upper Right Corner of the *Shield* is parted from the Whole, is given to him who boasteth too much of his martial Acts. (4.) A *Point in Point*, consisting of two arched Lines which bend towards the Base, and unite in the Honour Point: It is a Badge of Disgrace given to a Coward. (5.) A *Point Champaine*; it is formed of an arched Line cutting off the Base Part of the *Shield*, and is due to him who *killeth his Prisoner in cold Blood*. (6.) A *Plain Point*; it is by a *Strait Line* cutting off the Bottom of the *Shield*, as before, and is due to him who *flatters his Sovereign with Lies, &c.* (7.) A *Gore*; it is form'd on the Side of the *Shield* by two arched Lines, one from the *Sinister Chief*, the other from the *Base Point*, and unite in the *Fess Point* in an acute Angle; it is proper for a

cowardly and effeminate Man. (8.) A *Gusset*; it is made by a Line drawn from the *Sinister Chief* aslant into the *Field* a little way, and then carried perpendicularly to the Bottom. It is given to one who loves *Venus* better than *Mars*, on the Right Side; and on the Left it is the Badge of a *Devotee* to *Bacchus*. (9.) The last and worst of all is the *whole Coat reversed*, or *turn'd upside-down*, and is proper to *Traitors*. This Coat must not be blazon'd in *Tinctures*, *Metals*, or *Furs*, but in the common Names of Colours, as *Yellow*, *Red*, &c. not *Or*, *Argent*, *Azure*, &c. Note, If any of the Descendents of the Person thus disgraced shall approve himself a *Man of Virtue and Honour*, he shall have the *Abatement* taken away, and his Coat render'd honourable as formerly.

MARSHALLING is the second Part of *Heraldry*, and consists in an orderly ranging and bestowing of Things, (1.) *Within the Escutcheon*; as Coats of different Families marshall'd on account of *Descent*, *Marriage*, *Alliance*, *Adoption*, *Gifts of the Sovereign*, &c. which is also call'd *Quartering Coats of Arms*. (2.) *Without the Escutcheon*; these are by way of Ornament, as the *Helmet*, the *Mantle*, *Crest*, *Supporters*, *Escrol*, and *Motto*: Which marshall'd all together compleat *Coat-Armour* in the highest Degree, which is then call'd *Atchievement*.

THE *QUARTERING* of *Coat-Armour*, *Wherein it* then, is a proper Disposition of the Coats of distinct Families together within one *Escutcheon*: As on account of *Marriage*, when the Coats of *Man* and *Wife* are conjoin'd together *Paleways*, which is call'd *Impaling*, *Baron and Feme*. Also after Issue received the *Baron* doth bear the Arms of the *Feme* (she being an *Inheritrix*) in an *Inescutcheon*. Also the *Heir* may bear his Mother's Coat quarter'd with his own. Again by *Adoption* an Augmentation of Honour and Arms is often acquired, which Arms the Adopted marshals with his own in his own Coat. Also by the *Gift* or *Munificence* of the Sovereign a Person often has his Coat augmented with new Ensigns of Honour.

As to the exterior Ornaments of an *Atchievement*, *Of the Helmet*, they are, (1.) The *Helmet*, which is an Head-piece or *Armour* for the Head; which for *Sovereigns*, *Nobles*, *Knights*, and *Gentlemen*, are of as many different Fashions.

*Mantle.**Crest or Cognizance.**Supporters or Cotises.**Escrol or Compartment.
Motto.*

Fashions. (2.) The *Mantle*, which was a *military Habit* used in antient Times by great Commanders in the Field to cover their *Helmets* withal, whence they came to be cut and slash'd after various Manners, the *Flutterings* and *Curlings* of which by the Wind are represented by the jagged *Scantlings* of the *Mantle* about the *Helmet* in the *Atchievement*. (3.) The *Crest* or *Cognizance*; this is placed on the most eminent Part of the *Helmet*, and consists of a *Crown*, *Wreath*, *Chapeau*, or *Cap of State*, according to the Degree of the Bearer, surmounted of some honourable Figure, which is generally of the Animal Tribe. (4.) *Supporters* or *Cotises*, which are those Figures on the Sides of the *Atchievement*; which if they are Animals, and touch the *Escutcheon*, they are call'd *Supporters*; if otherwise, they are call'd *Cotises*. The *Nobility* only are permitted to have their Arms supported. (5.) The *Escrol* or *Compartment*, on which the *Supporters* stand, and which contains (6.) The *Motto* or *Device*, which is some Word or Sentence contrived by the Bearer, of some peculiar and important Signification; as, *Sola nobilitat Virtus*, Virtue only enobles us; *Honos Virtutis Præmium*, Honour is the Reward of Virtue.

In *Funeral Solemnities* Coat-Armour is of very conspicuous Use; for by the *Funeral Atchievement* we know the Degree or Quality of the Person deceased, as whether he was a *private Gentleman*, *Esquire*, *Knight*, *Baronet*, *Nobleman*, *Prince*, *King*, or *Emperor*; and whether he was a *married Man*, *Batchelor*, or *Widower*; with the like of all Degrees of Women: And these *Atchievements* are generally fix'd on the Front of the House of the Deceased, and are there call'd

Of Hatchments, or Funeral Atchievements.

HATCHMENTS, concerning which the following Things are observable. (1.) When a *Batchelor* dies, his Arms may be depicted *single* or *quarter'd*, but never *impaled*; and on the Hatchment he may bear a *Crest*, but not on the Hearse or Horses; and the Ground without the *Escutcheon* shall be all black. (2.) If a *Maid* dies, her Arms must be placed in a *Lozenge* or *Rhombus*, *single* or *quarter'd*, with the Ground all black; and the Hatchment shall have a *Shell* over it instead of a *Crest*; but on the Hearse it shall be ensign'd with a *Knot* of Ribbands.

(3.) When

(3.) When a *married Man* dies, his Wife's Arms are impaled with his own, with the Ground black on his Side of the Hatchment, and white on his Wife's Side, which thus distinguishes the *Dead* from the *Living*. On the Hatchment he bears a *Crest*, but not on the Hearse or Horses. (4.) When the *Wife* dies, the Arms are as before, with the Ground on her Side black, but on her Husband's white: Instead of a *Crest* her Hatchment shall have a *Shell* over it, which must also be omitted on the Hearse. (5.) If a *Widower* dies, his Arms shall be impaled with those of his Wife with a *Crest*, &c. and the Ground all black. But (6.) If it be a *Widow* that is dead, her Arms with her Husband's are impaled within a *Lozenge* Shield, with a *Shell* over it instead of a *Crest*, and the Ground all black. (7.) When the Deceased is the last of a Family, then, instead of a *Crest* or *Shell*, there shall be placed on the Hatchment a *Death's Head*, denoting that Death has conquer'd all. Note, By the *Helmet* and *Coronet*, &c. the *Degree* of the Deceased is known. Those little Shields, which contain *Death's Heads* and other Funeral Devices placed on the Foreheads of Horses that draw the Hearses at pompous Funerals, are call'd *Chaperonnes*, *Shapournets*, or *Chaperoons*.

THUS much for a Description of Arms and *The Rules of Atchievements*; next follow the *Rules of Blazon, Blazon*, which are carefully to be observ'd; viz. (1.) First the *Tincture of the Field* must be named; as, he bears *Or*, *Argent*, *Azure*, *Gules*, &c. (2.) Then the *Lines* wherewith it is divided, and also their *Forms*; as *per Pale*, *Fess*, *Bend*, &c. *invested*, *ingrailed*, *indented*, &c. (3.) Next the *Charge* must be named; of different Things, that which lieth next the Field, and nearest the Center, first; and then those which are more remote. (4.) When Colour and Metal are placed several times one upon another, the proper Names thereof must be mention'd but *once*; as, he bears *Or*, on a Saltire *Azure*, nine Lozenges of the *First*, i. e. the first named Metal *Or*, which must not be again repeated: For, (5.) A Repetition of Words is accounted a great *Fault* in *Blazoning*; and all superfluous Words must be carefully avoided, especially any of these, *of*, *or*, *and*, *with*, and such like, the Repetition of which is insufferable to the Ear of

an *Armourist*. (6.) A *Propriety of Language*, or *proper Forms of Blazon* must be heedfully observ'd; for *different Forms* make the Arms cease to be the same. (7.) The more *compendious* the *Blazon* is, the *better*, provided it be not *mysterious*. (8.) These Rules and Cautions relate to the Arms on the Shield only, and not to the *exterior Ornaments* of the *Atchievements*; for they are no *essential* Parts of Arms, and therefore in blazoning them, *Repetitions*, &c. are not deem'd Faults.

*An Example
of Blazon.*

I SHALL add one Example of blazoning *Coat-Armour*, and that shall be of the Arms of his present Majesty KING *GEORGE*, as being that which the Reader may most easily come at, to observe with the *Blazon*, and containing a great Variety in several Coats marshall'd together.

A R M S.

QUARTERLY, in the first grand Quarter *Mars*, three Lions passant-guardant in Pale, *Sol*; the *Imperial Ensigns* of *England*, impaled with the *Royal Arms* of *Scotland*, which are *Sol*, a Lion rampant within a double Treffure flower'd and counterflower'd with *Fleurs-de-lis*, *Mars*. The second Quarter is the *Royal Arms* of *France*, viz. *Jupiter*, three *Fleurs-de-lis*, *Sol*. The third, the *Ensign* of *Ireland*, which is, *Jupiter*, an Harp, *Sol*, stringed *Luna*. And in the fourth is *His Majesty's own Coat*, viz. *Mars*, two Lions passant-guardant *Sol*, for *Brunswick*; impaled with *Lunenburgh*, which is, *Sol*, Semee of Hearts proper, a Lion rampant, *Jupiter*; having ancient *Saxony*, viz. *Mars*, an Horse courant, *Luna*, ente (or grafted) in Base; and in a Shield furtout, *Mars*, the Diadem or Crown of *Charlemagne*. The Whole within a Garter, as Sovereign of that most Noble Order of Knighthood.

C R E S T.

AN Helmet full-fac'd and grated, mantled with Cloth of Gold, doubled Ermine, and surmounted of an Imperial Crown, on the Top of which is a Lion passant-guardant, *Sol*, crown'd with a like Crown.

SUP-

SUPPORTERS.

ON the *Dexter* Side a Lion guardant, *Sol*, crown'd as the Crest; on the *Sinister*, an Unicorn, *Luna*; horn'd, main'd, and hoof'd, *Sol*; gorged with a Collar of Crosses Patee, and Fleurs-de-lis, a Chain thereto affix'd all Gold; both standing on a Compartment, from whence issue at the Right End a *Rose* party per Pale, Argent and Gules, stalk'd and leav'd, Vert, for *England*; and on the Left a *Thistle* proper for *Scotland*.

MOTTO.

DIEU ET MON DROIT; that is, *God and my Right*. In the Garter, *Honi soit qui mal y pense*; i. e. Let him be ashamed who thinks ill thereof.

THUS much for the *Art of Blazon*; and now a Word or two concerning the Professors thereof, viz. *Heralds*, &c. shall conclude this Head.

THE COLLEGE of HERALDS is seated on *St. Bennet's Hill*, near *Doctors Commons*. They were made a College or Corporation by Charter of King *Richard III.* and afterwards had another Charter of Privileges granted to them by King *Edward VI.* in the third Year of his Reign, 1549. Of the College of Herald.

OF this Collegiate Society are, (1.) The *Earl Marshal* of *England*, who is their Head; of whom we have already spoken. (2.) Four *Kings of Arms*. (3.) Eight *Heralds*; and (4.) Four *Pursuivants* at Arms.

THE KINGS of ARMS are, (1.) GARTER, *Of the King's Principal King of Arms*, instituted by *Henry V.* 1422. His Office is to attend the *Knights of the Garter* at their Solemnities, and to marshal the Funeral Solemnities of the *Higher Nobility*; to carry *Garters* to Kings and Princes beyond the Seas, &c. (2.) CLARENCIEUX, so call'd from the Duke of *Clarence*, to whom it first belong'd. His Office is to marshal and dispose of the Funerals of all the *Lower Nobility* and *Gentry* on the *South Side* of the *Trent*, and is therefore sometimes call'd *Surroy* or *South-Roy*, i. e. *South-King*. (3.) NORROY, or *North-Roy*, is to

to do the like on all the *North Side* of the *Trent*. (4.) *BATH*, instituted by His Majesty 1725, upon the Creation of the 38 *Knights of the Bath*, in the Person of *Grey Longueville*, Esq; His Office is to attend those *Knights* at their Creations, Installations, &c. At the same time he was also made *Hanover Herald*.

Of the
Heralds.

THE *HERALDS* are distinguish'd by the Names of *Richmond*, *Lancaster*, *Chester*, *Windsor*, *Somerset*, *York*, *Hanover*, and *Brunswick*; besides one extraordinary, call'd *Mowbray*. They are all of equal Degree. Their Office is to wait at Court, attend public Solemnities, proclaim War and Peace, &c.

Of the Pur-
suirants.

PURSUIVANTS, or *Marshals*, are four, viz. *Rouge-Cross*, *Rouge-Dragon*, *Portcullis*, and *Blue-Mantle*: Besides these there are two extraordinary, call'd *Blanch-Lion* and *Rouge-Rose*. They had their Names, 'tis thought, from such Badges heretofore worn by them. The Service of these, the Heralds, and of the whole College, is used in marshalling and ordering *Coronations*, *Installations*, *Marriages*, *Christenings*, *Funerals*, *Festivals* of Kings, *Cavalcades*, *Shows*, &c. and also to take care of the *Coats of Arms* and of the *Genealogies* of the Nobility and Gentry.

Note, That as *Garter* is principal King of Arms in *England*, so *Lion* is in *Scotland*, and *Ulster* in *Ireland*.



PHILOLOGICO-MATHEMATICAL MISCELLANIES.



THE Bulk of this Work consisting purely of *Philological* Literature, it could not well be expected that Subjects of any other Sort, especially *Mathematical* ones, should make any Part thereof: But since at this Time no Parts of Learning are found more useful, or cultivated more universally, or afford greater Pleasure in the Study thereof, than the *Mathematical Arts and Disciplines*, I thought it would be no unacceptable Service, even to the mere *Philological* Reader, to give some general Account of them in a *descriptive Manner* only; and that may, in some measure, be esteemed of a *Philological Nature*, and therefore comportant enough with my Design.

Mathematical Literature, why here described.

MATHEISIS, though it originally signifies *Learning* in general, yet with us, in our own Tongue, it is appropriated to *Mathematical* Literature, and comprehends in its Signification all the *Arts and Sciences* which are conversant about *Number*, *Magnitude*, *Measure*, and *Motion*, &c. They are therefore call'd *Mathematical*, and those who understand or profess them are call'd *Mathematicians*.

Mathefis, what.

MATHEMATICS, or the *Mathematical Sciences*, have by many been divided into (1.) *Pure Mathematics*, containing *Arithmetic* and *Geometry*, which treat only of *Number* and *Magnitude*, and their various *Habitudes* and *Relations* abstractedly considered from all kind of Matter. (2.) *Mixed Mathematics*, which are those Branches of the Science which treat of the Properties of Quantity, either of *Number* or *Magnitude*, applied to Matter; as *Astronomy*, *Geography*, &c. (3.) *Speculative Mathematics*, which contemplates the

The Division of Mathematical Arts and Sciences.

Properties, Proportions, Relations, &c. of Bodies, which make the Theory. And, (4.) Practical Mathematics, which is the Application of the Theory to the practical Uses of Life in all the several Sciences.

*Another
Division
thereof.*

BUT this is far from being a *simple, just, and logical* Division of the Body of *Mathematical Science*; I shall therefore, with regard to the particular and different Nature of the Parts, make another four-fold Division thereof under the general Heads following: (1.) *Arithmetic.* (2.) *Geometry.* (3.) *Mixed Mathematics.* And, (4.) *Mechanics.* Of all which, and their various Sub-divisions, a little.

ARITHMETIC.

*Of Arithme-
tic.*

ARITHMETIC is the Doctrine of Computation in general, or the Art of estimating Quantities of Number or Magnitude, and expressing them in Characters of a known and determinate Value or Signification: The fundamental Rules of doing which are (after learning the Value of the Characters, which is call'd *Numeration*) five, viz. (1.) *Addition*, by which various and different Numbers of Things are collected into one *Sum*, which is call'd the *Total* or *Amount* of all. (2.) *Subtraction*, by which one Number or Quantity is taken from another in order to know the *Remainder, Difference, or Excess* of the Greater above the Lesser. (3.) *Multiplication*, by which one Number, call'd the *Multiplicand*, is *increased* or *multiplied* by another, call'd the *Multiplier*, so many times as is expressed thereby; the Result of which is call'd the *Product*. (4.) *Division*, by which one Number, call'd the *Divisor*, may be *subtracted* from another, call'd the *Dividend*, so many times as it is contained therein, which is express'd by a third Number call'd the *Quotient*. (5.) *Evolution*, or the *Extraction of Roots* out of any *Power*, as the *Square*, the *Cube*, the *Biquadrate*, the *Sur-solid*, &c. which are produced by multiplying any Number, call'd the *Root*, into itself 1, 2, 3, 4, 5, &c. times respectively.

*The several
Kinds thereof.*

THE Art of Computation consists of the following Branches, viz. (1.) *Numerical Arithmetic*, or that which performs by Numbers. (2.) *Logarithmetical Arithmetic*, or that which computes by *Logarithms* or the *Ratio's* of Numbers. (3.) *Specious Arithmetic*, or *Algebra*,

Algebra, which useth *Symbols* or *Characters* instead of Numbers. And (4.) *Fluxionary*, which proceeds with the momentary *Increments* and *Decrements* of Quantity considered in a *flowing State*.

Numerical Computation makes use of nine Characters, call'd *Figures* or *Digits*, to express Numbers by, *Numerical or Vulgar*,

viz. 1, 2, 3, 4, 5, 6, 7, 8, 9, and the Cypher 0 ; and it is of two Kinds, *viz.* (1.) *Vulgar* or *Common*

Arithmetic, which expresseth the Value of *Money*, *Weights*, *Measures*, and *Fractional Parts* in *divers Denominations*, according to the Usage of the Country.

(2.) *Decimal Arithmetic* ; this expresseth the Value of *and Decimal Arithmetic*.

divers inferior Divisions or *Parts* of *Money*, *Weight*, *Measure*, *Time*, in *tenth*, *hundredth*, *thousandth*, &c.

Parts of the *whole Number* or *Integer* ; that is, the *Integer*

is supposed to be divided into 10, 100, 1000, 10000, &c. *equal Parts* ; then the inferior *Denominations*

or *Parts* of this *Integer* are express'd in those *equal Parts*, which, because their Value decreaseth in

a tenfold Proportion in each Place to the Right-hand

of the *Integer*, are call'd *Decimal Parts* or *Numbers* :

For Instance, in *Vulgar Arithmetic* 12 l. 15 s. 8 $\frac{1}{2}$ d.

will be thus express'd in *Decimals*, 12,7854, which

are to be work'd in all Respects like Whole Numbers ;

which therefore renders *Decimal Arithmetic* compen-

dious, easy, and every way preferable to the *Vulgar*.

LOGARITHMS are Numbers in *Arithmetical* *Of Logarithms*

Progression, which, set with others in a *Geometrical*

Progression, do express their *Ratio's* or *Proportions* to

one another, as in the two following Series, *viz.*

Thus $\left\{ \begin{array}{l} \text{Logarithms,} \\ \text{Numbers,} \end{array} \right. \begin{array}{l} 0. \quad 1. \quad 2. \quad 3. \quad 4. \quad 5. \quad 6. \quad \text{Arith. Prog.} \\ 1. \quad 2. \quad 4. \quad 8. \quad 16. \quad 32. \quad 64. \quad \text{Geom. Prog.} \end{array}$

Now the *Ratio* or *Number* by which the Members of

the *Geometrical Progression* are produced by a constant

Multiplication therewith, is 2 ; thus 8 is produced by

3 Multiplications, 16 by 4, 32 by 5, &c. And there-

fore the *Ratio* of 8 to 1 (the first Term) is 3, of 16

to 1 is 4, of 32 to 1 is 5, &c. All which *Ratio's* are

expressed by the Numbers 3, 4, 5 in the Series above ;

for which Reason they are call'd their *Logarithms*.

Now the peculiar and most useful Property of *Loga-*

rithms is this, That for every *Addition* and *Substra-*

ction of them, there corresponds a *Multiplication* and

Divison of the Number to which they belong ; thus

K k 4 by

by adding 2 and 4 you have 6, which is the *Logarithm* of 64, the Product of 4 times 16; and the contrary for *Division*. Also by dividing a *Logarithm* you extract the Root of its Number; so 6 divided by 2 quotes 3 the *Logarithm* of 8, which is the *Square Root* of 64; divide 6 by 3 it quotes 2, the *Logarithm* of 4, the *Cube Root* of 64; and so of others. Having therefore a *Table* or *Canon* of *Logarithms* for all large Numbers, the tedious Labour of *Multiplication*, *Division*, and *Extraction* of *Roots* is saved by an easy *Addition*, *Subtraction*, and *Division* of their *Logarithms*; which is the great Excellency of this Kind of *Arithmetic*, and which no *Artist* ought to be unacquainted with.

Of Algebra.

ALGEBRA is call'd *Specious Arithmetic*, because it is a peculiar Art or Method of managing a *Calculus* or *Computation* by *Species* or *Symbols* (which are generally *Letters*) instead of *Figures*, or the *Digits* used in *Common Arithmetic*. The peculiar *Artifice* of this Invention is to assume *Quantities* really unknown as really known, and then to proceed with them according to the Rules till they are brought to an *Equation* or *Equality* with others given or known at first. 'Tis usual to represent *known Quantities* by the first Letters of the Alphabet, as *a, b, c, d, &c.* and the *unknown ones* by the last, as *x, y, z*, or by *Vowels*, as *i, o, u*. Moreover, to avoid all unnecessary Use or Repetition of Words, *Algebraists* have a Set of *Characters* which signify how the several *Quantities* are affected in the Operation; the chief whereof are the following.

Algebraic Signs, with their Explanations,

- + More; as $a + b$, is *a* more *b*.
- − Less; as $a - b$, is *a* less *b*.
- × Multiplied; as $a \times b$, is *a* multiplied by *b*.
- ÷ Divided; as $a \div b$, is *a* divided by *b*.
- = Equal to; as $a = b$, is *a* equal to *b*.
- : Is to; as thus, $a : b :: c : d$; that is, as *a* is to *b*,
- :: So is; } so is *c* to *d*.
- ⊙ Involved; as *Squared, Cubed, &c.*
- √ Evolved; or the *Root* extracted.
- √ The *Root*; as $\sqrt{a b}$, is the *Square Root* of *a b*.

FLUXIONS are the different Velocities or moving Forces wherewith any Quantities, considered as *Fluents*, or in a flowing State, increase or decrease every Moment according to the *Ratio* or Proportion of those Velocities. Quantities and their *Fluxions* are here (as in *Algebra*) represented by *Species* or *Letters*; those call'd *Constant Quantities*, by the first Letters *a, b, c, d, &c.* and the *Fluents*, or flowing ones, by the last, as *v, x, y, z*; and their *Fluxions* by the same

with a Point over them thus, $\dot{v}, \dot{x}, \dot{y}, \dot{z}$. But since the *Ratio's* of *Velocities* do themselves, in many Cases, keep perpetually altering (as in the Motion of a *Falling Body, &c.*) it will happen that these *Fluxions* themselves must vary every Moment, and so produce *Fluxions of Fluxions*, or *Second Fluxions*, thus mark'd,

$\ddot{v}, \ddot{x}, \ddot{y}, \ddot{z}$; and the *Fluxions* of these are *Third*

Fluxions, as $\dddot{v}, \dddot{x}, \dddot{y}, \dddot{z}$; and so on *ad infinitum*. Now the *Calculus of Fluxions* consists of two Methods, viz. The *Direct Method*, which finds the *Fluxions* of *Fluent Quantities* propos'd; and the *Inverse Method*, whereby from the *Fluxions* given we investigate the *Flowing Quantities*. This Art is of modern Date, is the very *Apex* of human Learning, and the *Invention* of the immortal Sir *Isaac Newton*.

GEOMETRY.

GEOMETRY is that Part of *Mathesis* which contemplates the *Nature, Properties*, and various *Affections* of *Quantities* or *Magnitude* in general. *Quantity* is of various Sorts; (*Note, A Point* is that which is supposed to have no Dimensions.) (1.) A *Line*, which is generated by the Motion of a *Point*; and therefore is of one Dimension only, viz. *Length*. (2.) A *Superficies*, which is generated by the Motion of a *Line*, and so hath two Dimensions, viz. *Length* and *Breadth*. (3.) A *Solid*, which is produced by the Motion of a *Superficies*, and hath three Dimensions, viz. *Length, Breadth, and Depth*.

EVERY Quantity is measured by a Quantity of the same Kind; as (1.) A *Line* is the Measure of a *Line*; and this is *Simple Measure*. (2.) A *Superficies* is measured

fured by a *Superficies* of less Quantity, and this is call'd *Square Measure*. (3.) A *Solid* measureth a *Solid*, and this is call'd *Cubic Measure*.

Similar.

QUANTITIES are said to be *Similar*, which are generated in the same Manner; thus all *Right Lines* and *Circles*, *Squares* and *Spheres* are *similar* to each other. They are also said to be *equal*, when they can be measured *exactly* by one *common Measure*.

Equal.

Commensurable.

Lastly, they are said to be *commensurable*, when they can be *exactly* measured by any *finite common Measure*: But such as have no such common Measure are said to be *incommensurable* to each other.

Geometry of three Kinds.

As *Lines* are those *Simple Quantities* of which all others do consist, so according to the several Forms or Kinds of these, there must ensue a Variety of *Geometric Science*. Thus (1.) *Right Lines* produce *plain Superficies*, and *Solids* terminated by such; all which make the Subject of *Plain Geometry*. (2.) *Circular Lines*, which generate *Spherical* or *Globular Bodies*; the Science of which makes *Spherical Geometry*. (3.) The *Curves*, and *Superficies* terminated by them, which are produced from various *Sections* of a *Cone*, make the Subject of the *Conical Geometry*. Of which in order.

Plain Geometry.

PLAIN GEOMETRY, then, is that which contemplates and teaches the Nature and Properties of all Quantities or Bodies which are generated by a *Rectilinear Motion*; and gives Rules whereby to investigate and compute the *Areas* of all such *Superficies*, and the *Solidity* of all such *Solids*. Among the *Superficies* of *Plain Geometry* the chief are, the *Square*, the *Parallelogram*, the *Triangle*, the *Circle*, the *Rhombus*, *Rhomboides*, and all sorts of *Trapezia* and *Polygons*. Among the *Solids* are reckon'd the *Cube*, the *Parallelopipedon*, the *Cone*, the *Globe* or *Sphere*, the *Pyramid*, *Prism*, *Cylinder*, and all Kinds of *Frusta* and *Polyhedrons*. The Doctrine of these Figures and Bodies makes the Subject of *Euclid's Elements* of *Geometry*.

Spherical Geometry.

SPHERICAL GEOMETRY, or the *Doctrine* of the *Sphere*, is conversant about the Nature, Properties, and Affections of the *Circles* of the *Sphere*, both *great* and *small*. This consists of three great Parts, viz. (1.) The Doctrine of the *Circles* of the *Sphere* considered singly, or as *intersecting* each other, and forming *Spherical Triangles*, which make the Sub-

Doctrine of the Sphere.

ject

ject of *Spherical Trigonometry*. (2.) *Orthography*, which *Orthography*. is the *Projection* of the *Sphere in Plano*, by *parallel Lines*; or a *Delineation* of all its *Circles* as they are to an *Eye* at an *infinite Distance*; which in this Case are all *Ellipses*. (3.) *Stereography*, a *Projection* *Stereography*. of the *Sphere*, or its *Circles*, as they would appear on the *Plane* of the *Projection* to an *Eye* placed on the *Surface* of the *Sphere*; and in this Case the *Projection* will all consist of *Right Lines* and *Circles*.

CONICAL GEOMETRY, commonly call'd *Conical Geo-*
Conic Sections, or *Conics*, is the *Doctrine* of three *metry*.
special Curves made by the *Section* of a *Cone* in three
different *Manners*. As (1.) The *Ellipsis*, which is *An Ellipsis*.
produc'd by a *Plane* cutting off the *Cone*, thro' both
Sides, but not parallel to the *Base*. This Figure is
vulgarly call'd an *Oval*, or *Oblong Circle*; having
two *Diameters*, the longest call'd the *Transverse*, and
the shorter the *Conjugate Diameter*. (2.) The *Para-* *Parabola*.
bola, which is a *Curve* made by cutting the *Cone* by
a *Plane* parallel to one of its *Sides*. And (3.) The *Hyperbola*.
Hyperbola, which is produced by a *Plane* cutting the
Cone in any *Manner* not parallel to the *Side* or *Base*.
The *Properties* peculiar to each of these *Curves* are
many, and make the most important *Part* of the
higher Geometry.

MIXED MATHEMATICS.

THIS consists of those *Mathematical Disciplines* *Of mixed*
which require the united Assistance of *Arithmetic* and *Mathematics*.
Geometry, being the Application of the *Theories* or
Rules of each to the various *Uses* and *Purposes* of *Life*:
And are as follow.

MENSURATION is the Art of Computing the *Mensuration*.
Quantity of the *Dimensions* of *Bodies* of all *Kinds*,
in the known *Measures* in common Use, as *Inches*,
Feet, *Yards*, &c. Thus we find how many *Rods*,
Yards, *Feet* and *Inches* the *Length* of any *Line* or
Distance is; then we compute how many *Square*
Rods, *Yards*, &c. is contain'd in the *Area* of any
Superficies, which is call'd the *Superficial Content*
thereof. And, lastly, we calculate the *Number* of
Cubic Feet, *Inches*, &c. contain'd in the *Bulk* of any
Solid, which is call'd the *Solidity* or *Solid Content*
thereof.

GAUGING

Gauging.

GAUGING is an Art whereby we find the *Content* of the *Capacity* of any *Vessel* in *Ale*, *Beer*, or *Wine Gallons*, or of *Corn* in *Corn Bushels*. In order to do this, the *Solid Content* is found in *Cubic Inches* by *plain Mensuration*; and then reduced to *Gallons*, by dividing by 282, the *Cubic Inches* in an *Ale Gallon*; or 231, for a *Wine Gallon*; or $268\frac{8}{10}$, for a *Corn Gallon*; or 2150.42 for *Corn Bushels*; and this is done by various *Methods* and *Instruments*.

Geodæsia.

GEODÆSIA, or *Surveying*, is the Art of measuring Land; by first measuring the *Sides* of a *Field* by *Gunter's Chain* of four *Rods*, or 100 *Links*; and then taking the *Angles* with a *Plain Table*, *Theodolite*, &c. Afterwards the *Field* is plotted, or laid on *Paper*, from a *Scale* of equal *Parts*; and then its *Area* is reduced to *Triangles*, *Trapezia*, &c. and the *Superficial Content* of each is found in *Acres*, *Roods*, and *Rods*, by allowing 160 *Square Rods* or *Poles* to an *Acre*, *Statute Measure*.

Trigonometry.

Plain.

TRIGONOMETRY; this is the most useful Art which teaches the *Doctrine* of the *Mensuration* of *Triangles*, and is twofold; viz. (1.) *Plain*, which is conversant about *Plain* or *Rectilineal Triangles*; the *Sides* or *Legs* of these are consider'd as the *Radius's*, *Sines*, *Tangents*, or *Secants* of the *Angles*, and are measured in any Kind of *equal Parts*; the *Angles* themselves are computed in *Degrees*, *Minutes*, and *Seconds*, the *Measures* proper to a *Circle*, of which they are severally *Parts*. In any *Plain Triangle*, two *Sides* only, or one *Side* and one *Angle* being known, is sufficient to discover the other *Sides* and *Angles*.

Spherical.

(2.) *Spherical*; this treats of *Spherical Triangles*, the *Sides* of which are *Parts* of *Circles*, and so both them and their *Angles* are found in *Degrees*, *Minutes*, &c. by means of the *Radius*, *Sine*, and *Tangent*, as before.

Altimetry and Longimetry.

ALTIMETRY is the Art of Measuring the *Heights* of *Objects* above the *Earth* by means of a *Quadrant*, and that either at one or two *Stations*; at one *Station* you form a *Right-angled Triangle*, in which the *Base* or *Distance* of the *Object* is measured and known, and the *Angle* at the *Base* is measured likewise by the *Quadrant*, and therefore the *Cathetus* or *Perpendicular* (which is the *Height* of the *Object*) is easily found. If you cannot approach the *Object*,
you

you take the Angle of its Height at two Stations, and measuring the Distance between them, you have an *oblique Triangle*, wherein are two Angles and a Side known, and from thence the other Parts, and consequently the Height of the Object is easily determin'd. The measuring of the *Distance* of Objects after the same Manner is call'd *Longimetry*.

NAVIGATION is the Art of *Sailing*, or conducting a Ship under Sail from one Place to another, or to any appointed Port; this may be done several ways. As, (1.) By the *Plain Chart*, wherein the *Meridians* are all laid down as parallel Lines, which they are not, and therefore it is very erroneous, and only useful in *Coast-Sailing*. (2.) By *Mercator's Chart*; this is a great Improvement of the *Plain Chart*; for tho' the *Meridians* are here *parallel Lines*, yet the *Degrees of Latitude* being *increased* in Proportion as the *Degrees of Longitude* *decrease*, the *true Easting* or *Westing* of a Ship is hereby preserved, which was destroyed in the other. (3.) By *middle Latitude*, which is half the Sum of the *Latitudes* departed from and arrived to; for this is the Analogy: As the Co-sine of middle Latitude is to the Tangent of the Course, so is the Difference of *Latitude* to the Difference of *Longitude*; and this way comes very near the *Truth*. (4.) *Oblique Sailing* is that wherein the Parts to be calculated constitute an *Oblique Triangle*, which happens in many Cases. (5.) *Great Circle Sailing*; this is when the *Mariner* directs the Course of the Ship upon the Arch of a great Circle of the Globe; the *Reckoning*, therefore, here is made according to the Rules of *Spherical Trigonometry*. In all other Methods but this the Ship is driven by the Wind on a *Rhumb*, or *Line*, which makes equal Angles with every Meridian. (6.) *Globular Sailing*, or by the *Globular Chart*; the Property of which is, that the *Parallels* and *Meridians* are described thereon in the same Manner as they are on the Globe itself; and consequently this Method is not only very curious, but the most natural of all others; and is also very exact.

FORTIFICATION is the Art of applying the Doctrines of *Plain Trigonometry* to the Calculation of the *Lines*, *Sides*, and *Angles* of a *Fort* of any Figure, regular or irregular, in order to secure and defend the Place

Navigation.

Fortification.

Place so fortified against the Attacks of the Enemy in the best manner possible.

Gunnery.

GUNNERY, in part, consists of the Application of the *Doctrine of Projectiles*, or casting *Bombs*, that so any distant Object, as a Castle, &c. may be thereby struck with Certainty, to the Intent it may be demolish'd. For from the Nature of the *Parabola*, and the *Doctrine of Plain Triangles*, certain Rules are deduced whereby the Degrees of *Elevation* of the *Cannon*, the *Impetus* or Force by which the *Ball* or *Bomb* is projected, the *Amplitude* or horizontal Range, the Height of the *Random*, the Time of the Continuance in the Air, &c. are determined for that Purpose.

Music.

MUSIC is the Art of making *Harmony* with the various *Tunes* or *Notes* of Sound combined in a proper Manner. All Sounds are raised by the Percussion of some Body, which vibrating in the Air causes various *Notes* or *Tunes* of the Sound, which are more *Acute* or *Grave*, as those Vibrations are quicker or slower, and they are reciprocally as the Lengths of *Strings*; and hence the Relation or Proportion of Musical Notes is determined; thus if a *Chord* be strain'd, and fretted or stopp'd

At the Divisions here specified, viz.	$\left\{ \begin{array}{c} \frac{1}{2} \\ \frac{2}{3} \\ \frac{3}{4} \\ \frac{4}{5} \\ \frac{5}{6} \\ \frac{1}{3} \\ \frac{5}{8} \end{array} \right\}$	The Note sounded will be	$\left\{ \begin{array}{l} \text{An Octave or Eighth.} \\ \text{A Fifth.} \\ \text{A Fourth.} \\ \text{A greater Third.} \\ \text{A lesser Third.} \\ \text{A greater Sixth.} \\ \text{A lesser Sixth.} \end{array} \right\}$

If any of these Notes are sounded with the whole String, the Consonance is agreeable and pleasing to the Ear; and they are therefore call'd *Concords*, but all others are *Discords*. And a proper Combination of these Notes, both *Concords* and *Discords*, makes *Harmony* or *Melody*.

Astronomy.

ASTRONOMY is that Science which, from the *Conic Sections*, and *Trigonometry plain* and *spherical*, supplies us with Rules for investigating the Diameters and Distances of the Planets; the Figure of their Orbs; the Laws of their Motions; their various Phases; the Time of their Annual, Menstrual, or Diurnal

Diurnal Revolutions; the *Eclipses* of the Sun and Moon, and the *Occultation* of the Planets and Stars; their Places, Latitude, and Longitude in the *Ecliptic*; their Declination, Right and Oblique Ascension and Descension, and Ascensional Difference; *Amplitude*, *Azimuth*, and various other Affections of the Planets and Stars.

SCIAGRAPHY or *Dialling* is the Art of making *Dials* of all Sorts, on all Kinds of *Planes*; as *Horizontal*, *Erect*, or *Reclining*; *Direct* or *Declining*. The *Hour-Lines*, the *Stile's Height* above the *Plane*, the *Substile's Distance* from the *Meridian*, and *Plane's Difference of Longitude*, are all calculated by the Rules of *Spherical Trigonometry*; and from thence are deduced various *Mechanical Methods* of making *Dials* for such as understand not the *Theory*. *Sciagraphy or Dialling.*

OPTICS is a Science which treats of the Properties of direct *Vision*, and is of two Kinds; viz. (1.) *Catoptrics*, which treats of *Vision* by *Reflection* of the Rays of Light from the *Plane*, *Convex*, or *Concave Surfaces* of *Mirrors* or *Looking-Glasses*. (2.) *Dioptrics*, which treats of *Vision* by *Refraction*, or the Appearance of Objects thro' different *Mediums*, as *Air*, *Water*, *Glass*; and especially thro' *Lenses* of *Glass*, which are either *Convex* or *Concave* on one or both Sides generally; and receive Rays of Light, which are either *Parallel*, *Converging*, or *Diverging*; and accordingly enlarge or diminish the Images of Objects in the *focal Point* of the *Lenses*; which are used sometimes *singly*, and sometimes *combined*; as in *Compound* or *Double Microscopes* and *Telescopes*. *Optics. Catoptrics. Dioptrics.*

PERSPECTIVE is that Part of the *Mathematics* which gives Rules for delineating Objects on a plain *Superficies* after the same Manner as they would appear to our Sight, if seen thro' that *Plane*, it being supposed a transparent one. In the Representation of *Solid Bodies*, *Buildings*, &c. there are three Parts observable. (1.) *Ichnography*, which shews the *Plan*, *Plat-form*, or *Ground-Work* of the Building. (2.) *Orthography*, which exhibits the *Front upright*, or Parts in *direct View*. (3.) *Scenography*, which is the perspective View of the whole Building, *Fronts*, *Sides*, the *Height* and all. *Perspective.*

ARCHITECTURE is to be reckon'd among the Arts *Mathematical*, forasmuch as *Geometry* is necessary *Architecture*

necessary for forming the several Parts and Members in a Piece of Building, and constructing the whole with *Beauty and Harmony*. *Arithmetic* also furnishes the Means of calculating the Proportions and Dimensions of every Part. Thus, having divided the Diameter of a *Column* or *Pillar* into sixty equal Parts (call'd a *Module*) the several Members of the *Pedestal* and *Base* of the *Pillar*, and of the *Capital*, the *Architrave*, *Freeze*, and *Cornice* of the *Entablature* above, are all determined in those equal Parts of the *Module*, according to the various Proportions used in the *Tuscan*, *Doric*, *Ionic*, *Corinthian*, and *Composite* Orders.

MECHANICS.

Of Mechanics. *MECHANICS* is the Geometrical Science of *Motion* and *moving Forces*, or *Powers*; declaring their *Effects*, as applied to *Engines*, and demonstrating the *Laws* by which all *Motion* is perform'd by Simple or Compound Machines.

The Center of Magnitude, IN Bodies, as the Subject of Motion, we consider three Sorts of *Centers*, viz. (1.) The *Center of Magnitude*, which is that Point in Bodies, *equally distant* (as much as possible) from their *Extremities*. (2.) The *Center of Motion*, which is that Point in Bodies about which they may move or rest. (3.) The *Center of Gravity* is that Point in a Body on which it will rest, or on all Sides of which the Parts of that Body *equi-ponderate* each other, in any Situation whatsoever.

Of the Power and Momentum of Motion. THAT by which a Body may be sustain'd or mov'd, is call'd a *Power*, or *moving Force*. The *Quantity* of a *Power* is determin'd by the *Quantity* of *Gravity* of the Body on which it acts, sustaining it in *Equilibrio*, or raising it. The *Quantity* of Motion of a Body is the Sum of the Motion of all its Parts. The *Momentum* or *Force* of a Body is compounded of the single *Forces* of *Gravity*, and the *Celerity* or *Swiftness* of its Motion.

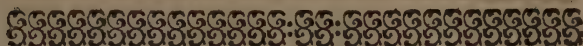
Of the Mechanical Powers. THE *Mechanical Powers* or *Machines* are either Simple or Compound. *Simple Machines* are the following, viz. (1.) The *Lever*, which is a strait Piece or Bar of Wood or Iron, moveable on a fix'd Point or Center, call'd the *Fulcrum* or *Prop*; at one End of the *Lever* the *Power* is affixed, and the *Weight* to the other

other most generally. (2.) The *Balance* is a *Lever* *The Balance*,
suspended in the middle Point; at the Ends of which
hang a Pair of Scales, for estimating the Weight of
Bodies by some known and standard *Weight*. (3.)
The *Axis in Peritrochio*, or Wheel and Axis, which *Axis in Peri-*
is a Machine invented for the easy lifting, or raising a *trochio.*
Weight to a greater Height than can be done by the
Lever; as in the *Crane*, &c. (4.) The *Pulley*, which *The Pulley.*
is a Machine consisting of a Wheel, moveable about
an Axis fix'd in a Block; when several are combin'd
in one Block, they are call'd a *Tackle* of *Pulleys*; and
are used where the *Wheel* and *Axis* can't be con-
veniently applied. (5.) The *Wedge* is an Instrument *The Wedge.*
much better known in its Effect than in its Power.
(6.) The *Screw*, whose *Power* and *Use* is well known, *The Screw.*
especially in Point of *Pressure*. (7.) The *Inclined* *The Inclined*
Plane; by this Machine Bodies are raised with less *Plane.*
Power in an *oblique*, than they could be in a *perpen-*
dicular Direction.

THE *General Principle*, or *Canon*, by which the *The general*
Force or Power of each of those Machines is esti- *Principle of*
mated, is this, *As the Distance of the Weight is to the all Mechanic*
Distance of the Power from the Center of Motion, so Agency.
is the Power to the Weight it will equiponderate.
Otherwise thus; *The Spaces passed thro' by the Power*
and Weight are reciprocally proportional to their Forces.

Compound Machines are such as consist of two or *Compound*
more of the *simple ones* combined together, and whose *Machines.*
Forces are united to produce an Effect; as *Clocks*,
Watches, *Orreries*, most Sorts of *Water-Engines*,
with an infinite Variety of others.





ADVERTISEMENT.

THE Account given of the *Quakers*, and their Tenets, in *Pag.* 35. of this Book, being not satisfactory to the People of that Denomination, they have desired me to insert here another, which themselves have dictated, and they think better expresses their Character and Principles than the former. I readily comply with their Request, as in itself very reasonable, and which will clear me of the Charge of *Misrepresentation*, which, when real and designed, is the foulest Imputation any Writer can be affected with, and which I am very conscious I have not any where justly deserv'd.

“ *QUAKERS*, so call'd at first from some of
“ them *quaking* or *trembling* in their religious Meet-
“ ings. They disown not the Name *Quaker*, when
“ used by others as a Mark of Distinction *only*, and
“ not in Derision. Their Tenets, or religious Prin-
“ ciples, are largely set forth and vindicated in an
“ *Apology* first published in 1675 by *Robert Barclay*,
“ which has been often since printed without any
“ Alteration; to which I shall refer the Reader for
“ their noted Doctrines of the *Light within*, and
“ their Disuse of all external Ceremonies and Services
“ in the Worship of God but Preaching and Pray-
“ ing; and even the two Sacraments, BAPTISM
“ and the EUCHARIST. Their other Modes are
“ too well known to need Description. They first
“ appear'd about the Year 1650.”

I N D E X.

A		<i>Allegory</i>	139
<i>Attestations of Honour</i>	494	<i>Alexander the Great</i>	299
<i>Abbreviations</i>	123	<i>Alexipharmics</i>	430
<i>Absolute Affection</i>	191	<i>Algebra</i>	504
<i>Abstraction</i>	177	<i>Altimetry</i>	508
<i>Absorbents</i>	430	<i>Amalgamation</i>	412
<i>Accent</i>	108	<i>Amazons, Country of</i>	259
<i>Acheron</i>	77	<i>Ambrosia</i>	81
<i>Acrostic</i>	212	<i>America, Continent of</i>	242
<i>Ætæon</i>	92	—— Islands of	261
<i>Ætion</i>	184	—— discover'd	291
—— Human	9	—— peopled	ib.
—— Kinds of	477	<i>Americus Vesputius</i>	291
—— Poetic	209	<i>Amity</i>	19
<i>Adenography</i>	372	<i>Amphion</i>	94
<i>Adjunct</i>	192	<i>Amphiscii</i>	238
<i>Adjective</i>	110	<i>Amphitrite</i>	76
<i>Admiral, Lord High</i>	459	<i>Amplification</i>	142
<i>Admiralty Court</i>	461	<i>Anabaptists</i>	34
<i>Adverbs</i>	118	<i>Anacænosis</i>	143
<i>Adultery</i>	16	<i>Anacephalæosis</i>	136
<i>Æra's</i>	281	<i>Analogy</i>	109
—— Several	282	<i>Anagram</i>	212
<i>Ærography</i>	331	<i>Anadiplosis</i>	140
<i>Ærology</i>	331	<i>Analeptics</i>	430
<i>Ænigma</i>	140	<i>Analytic Method</i>	174
<i>Æolus, his Fable</i>	90	<i>Anaphora</i>	140
<i>Ætiology</i>	142	<i>Anastrophe</i>	146
<i>Ævum</i>	272	<i>Anatomy</i>	395 & seq.
<i>Affability</i>	18	<i>Anemography</i>	332
<i>Africa, Continent of</i>	241	<i>Angels</i>	180
—— Islands of	261	<i>Angiology</i>	384
<i>Ages, Heathen, Moralized</i>	86	<i>Animals</i>	182, 337
<i>Agglutinants</i>	430	<i>Animal Kingdom</i>	408
<i>Air, States of</i>	426	<i>Anomalous Plants</i>	350
<i>Alborak</i>	57	<i>Antanaclassis</i>	140
<i>Alchemy</i>	406	<i>Antanomasy</i>	139
<i>Alcoran</i>	62	<i>Antimeria</i>	146
		<i>Antimetabole</i>	142
		<i>Antiphrasis</i>	139

INDEX.

<i>Antipodes</i>	238	<i>Axioms of the Diagnostics</i>	
<i>Antistrophe</i>	203	of Diseases	422
<i>Antithesis</i>	144	<i>Axis</i>	234
<i>Antoeci</i>	237		
<i>Apetalous Plants</i>	348		
<i>Aphæresis</i>	144		
<i>Apices</i>	355	B	
<i>Apocope</i>	144	<i>Babylonian Idolatry</i>	66
<i>Apollo</i>	69	<i>Babylonian Monarchy</i>	293
— his Fable explain'd	87	<i>Bacchus</i>	70
<i>Aporia</i>	143	— the same as <i>Nimrod</i>	83
<i>Aposiopesis</i>	ib.		
<i>Apostles</i>	28	<i>Bacciferous Plants</i>	349
<i>Apostrophe</i>	143	— Trees	351
<i>Apparition of Spirits</i>	181	<i>Balance of Nature</i>	415
<i>Arabia</i>	253	<i>Baldwin</i>	305
<i>Architecture</i>	511	<i>Balsams</i>	399
<i>Arcadius</i>	304	<i>Barbary</i>	254
<i>Archontes</i>	294	<i>Bark or Rhind</i>	353
<i>Argumentation</i>	166	<i>Baron</i>	465
<i>Arguments, Artificial</i>	127	<i>Baronet</i>	ib.
— Inartificial	ib.	<i>Being or Entity</i>	176
<i>Arms</i>	484	— Kinds of	178
<i>Aristeus</i>	75	<i>Beings, Classes of</i>	2
<i>Aristocracy</i>	452	<i>Bel or Baal</i>	66
<i>Arithmetic</i>	502	<i>Belgium or the Netherlands</i>	308
<i>Arteriology</i>	386		
<i>Articulation</i>	361	<i>Belides</i>	80
<i>Asia, Continent of</i>	240	<i>Beneficence</i>	18
— Islands of	261	<i>Benevolence</i>	ib.
<i>Asperifoliate Plants</i>	349	<i>Bildulgerid</i>	255
<i>Assizes</i>	480	<i>Bishop</i>	28
<i>Assyrian Monarchy</i>	292	<i>Bissextile</i>	265, 273
<i>Asterism</i>	140	<i>Bladder</i>	382
<i>Astræa</i>	74	<i>Blazon</i>	484
<i>Astringents</i>	430	— Rules of	497
<i>Astrography</i>	330	— Examples of	498
<i>A syndrome</i>	145	<i>Body</i>	179
<i>Atheists</i>	6	<i>Bolus's</i>	402
<i>Athens, State of</i>	294	<i>Bonity</i>	194
<i>Atlas</i>	94	<i>Botany</i>	341 & seq.
<i>Atmosphere</i>	331	<i>Brain</i>	372
<i>Attraction</i>	318	<i>Brazil</i>	259
<i>Astronomy</i>	510	<i>Breasts</i>	378
<i>Avernus</i>	77	<i>Bucolics</i>	200
<i>Aurora</i>	71	<i>Bulbous Root</i>	352
— means the Dawn	90		
— <i>Borealis</i>	333		

Calcination

INDEX.

C

C alcination	409	Chorography	230
Caliphs	310	Christ, Account of	26
Canada	258	Christendom	28
Capillary Plants	347	Christianity	28, & seq.
Capillated Plants	348	Chronology	264 & seq.
Cardiacs	430	Church, Christian	28
Carminatives	ib.	— Greek	29
Cases of Nouns	111	— Roman	31
Cassander	300	— of England	33
Catachresis	139	Circe	93
Cataplasms	403	City	446
Catastasis	206	Clarification	409
Catastrophe	ib.	Clemency	18
Cathartics	431	Climates	236
Catoptrics	511	Clouds	333
Causes	190	Clymax	141
Cautery	400	Cobobation	412
Centaur	79	Coccyus	78
— their Fable	ex-	Cold	324
— plain'd	94	Codes	471
Cento	214	Collyriums	403
Cephalics	430	Colour	321
Cerates	400	Columbus, Christopher	291
Cerberus	78	Comedy	206
Ceres	74	Cometography	330
— her Fable explain'd	91	Comity	18
Chamberlain, Lord	458	Common Pleas	461
Chancellor, Lord	457	Commons of England	465
Chancery	461	Communicability	188
Chaos	84	Company	305
Charybdis	93	Comparison of Adjectives	112
Charientism	139	Composition, Rhetorical	137
Charity	77	— Metaphysical	187
Charlemagne	305	Conception	162
Charon	77	Concord	120
Charges in Heraldry	490	Concubinage	16
— & seq.		Confections	396
Chastity	15	Confirmation	135
Chemistry	406 & seq.	Confutation	136
Children	449	Conjugation of Verbs	113,
Chili	259		115
Chimæra	79	Conjugal State	447
— what	94	Conjunction	118
China	251	Conical Geometry	507
Chinese History	314	Coniferous Trees	351
		Connection	137
		Conserve	396

INDEX.

<i>Conscience</i>	10 & seq.	<i>Definition</i>	159
<i>Constable</i>	458	<i>Degrees</i>	235
<i>Constantine the Great</i>	303	<i>Deities, Heathen</i>	68
<i>Consular State</i>	302	<i>Deliberative Subjects</i>	130
<i>Continents</i>	234	<i>Democracy</i>	453
<i>Context, Names in</i>	145	<i>Demonstrative Subjects</i>	128
<i>Contingency</i>	185	<i>Denmark, Geography of</i>	243, 247
<i>Contradiction</i>	186	———— <i>History of</i>	310
<i>Contrariety</i>	<i>ib.</i>	<i>Denominations</i>	194
<i>Conversion of Propositions</i>	166	<i>Density</i>	322
<i>Copper</i>	336	<i>Deobstruents</i>	431
<i>Copula</i>	163	<i>Dependency</i>	187
<i>Corinth, State of</i>	295	<i>Deucalion, or Noah</i>	96
<i>Corymbiferous Plants</i>	348	<i>Diagnostics</i>	421
<i>Corruptibility</i>	187	<i>Dialect</i>	101
<i>Cosmology</i>	325	<i>Diaphoretics</i>	431
<i>Cotyledon</i>	357	<i>Diana</i>	75
<i>Creation</i>	188	———— <i>means the Moon</i>	92
<i>Creed, Jewish</i>	46	<i>Diarthrofsis</i>	361
<i>Crenated Leaves</i>	354	<i>Diastrasis</i>	107
<i>Crim Tartary</i>	250	<i>Diafyrmus</i>	140
<i>Critic</i>	215	<i>Dictionary</i>	100
———— <i>Good</i>	216	<i>Diction, Poetic</i>	207, 209
———— <i>his Qualifications, Na-</i>		<i>Diet Drinks</i>	401
———— <i>tural</i>	217	<i>Diets, Kinds of</i>	427
———— <i>Moral</i>	221	<i>Digestion</i>	410
———— <i>Artificial</i>	224	<i>Digest, or Pandects</i>	473
———— <i>Bad, his Qualities</i>	225	<i>Dignity</i>	138
<i>Critical Licence</i>	223	<i>Dilemma</i>	171
<i>Criticism</i>	215 & seq.	<i>Dioptrics</i>	511
———— <i>Rules of</i>	227	<i>Discoide Plants</i>	348
<i>Cruelty</i>	18	<i>Disease</i>	416 & seq.
<i>Crystallization</i>	411	<i>Diseases, Catalogue of</i>	432
<i>Cucupha</i>	405	———— <i>& seq.</i>	
<i>Culmiferous Plants</i>	350	<i>Dislocations</i>	440
<i>Cybele</i>	74	<i>Dissolution</i>	410
<i>Cycle</i>	272 & seq.	<i>Dispensatory</i>	389
<i>Cyclops</i>	73	<i>Disposition, Rhetorical</i>	133
<i>Cyrus</i>	297	———— <i>Logical</i>	147, 149
D		<i>Distillation</i>	409
<i>DAYS, Kinds of</i>	270	<i>Distribution</i>	161
———— <i>Deacons</i>	29	<i>Diversity</i>	186
<i>Decalogue</i>	39	<i>Divisibility</i>	317
<i>Declension of a Noun</i>	111	<i>Divison, Logical</i>	161
<i>Decostian</i>	394	———— <i>of Persons</i>	474
		———— <i>of Things</i>	475
		<i>Diuretics</i>	431
		<i>Dominical</i>	

INDEX.

<i>Dominical Letters</i>	272	<i>Epanalepsis</i>	140
<i>Drama</i>	206	<i>Epanodos</i>	141
<i>Drinks, Kinds of</i>	427	<i>Epanorthosis</i>	213
<i>Dryades</i>	76	<i>Epenthesis</i>	144
<i>Duke</i>	464	<i>Epic Poem</i>	209
<i>Durability</i>	321	<i>Epicedium</i>	213
E		<i>Epigram</i>	212
<i>EAR</i>	374	<i>Epiphonema</i>	143
<i>Earl</i>	464	<i>Epichirema</i>	171
<i>Earth, Affections of</i>	231	<i>Episcopacy</i>	29
— <i>Re-peopling of</i>	286	<i>Episodes</i>	210
	& seq.	<i>Epithems</i>	404
<i>Earths</i>	335	<i>Epistrophe</i>	140
<i>Easter, Limits of</i>	277	<i>Epitaph</i>	212
— <i>to find</i>	278	<i>Epitasis</i>	206
<i>Echo, Poetical</i>	214	<i>Epithalamium</i>	212
— <i>Natural</i>	322	<i>Epitrope</i>	142
<i>Ecliptic</i>	235	<i>Epocha</i>	281
<i>Effects</i>	190	<i>Epode</i>	203
<i>Egypt</i>	254	<i>Epizeaxis</i>	141
— <i>Antient</i>	296	<i>Equator</i>	235
<i>Elasticity</i>	324	<i>Equity</i>	17
<i>Elaterium</i>	400	<i>Equivocal Generation</i>	187
<i>Electricity</i>	319	<i>Erotesis</i>	143
<i>Electuaries</i>	397	<i>Escutcheon</i>	484
<i>Elegance</i>	137	<i>Esquire</i>	465
<i>Elegy</i>	201	<i>Essenes</i>	44
<i>Elements, Chronical</i>	412	<i>Eternity</i>	189
<i>Elixirs</i>	396	<i>Ethics</i>	9
<i>Ellipsis</i>	144, 507	<i>Ethiopia, Superior and In-</i>	
<i>Elocution</i>	137	ferior	256
<i>Elysium</i>	80	<i>Etymology</i>	107
<i>Embolimic Year</i>	266	<i>Evangelists</i>	28
<i>Emetics</i>	431	<i>Eviternity</i>	189
<i>Embrocations</i>	403	<i>Evocation</i>	146
<i>Emulsions</i>	401	<i>Euphratian Provinces</i>	253
<i>Enalage</i>	145	<i>Europe, Continent of</i>	239
<i>Enangiospermous Plants</i>	350	— <i>Subdivided</i>	243
<i>Enantiosis</i>	142	— <i>Islands of</i>	260
<i>Endymion</i>	92	<i>Example</i>	173
<i>English Tongue</i>	103	<i>Exchequer Court</i>	461
<i>Enmity</i>	18	<i>Exclamation</i>	143
<i>Entity</i>	176	<i>Excommunication, Jewish</i>	48
<i>Enthymem</i>	172	<i>Exercise</i>	428
<i>Envy</i>	18	<i>Existence</i>	176
<i>Epaets</i>	271	<i>Exordium</i>	134
		<i>Extension</i>	317
		<i>Extraction</i>	410

Exuvia

INDEX.

<i>Exuviae</i>	337	<i>Freezing</i>	333
<i>Eye described</i>	373	<i>Friendship</i>	19
F		<i>Frontals</i>	404
		<i>Fruits</i>	356
<i>Fable, Comic</i>	207	<i>Fungous Plants</i>	347
<i>— Tragic</i>	228	<i>Furies</i>	79
<i>— Epic</i>	210	<i>Future State</i>	8
<i>Faith</i>	159	G	
<i>Family</i>	445		
<i>Falsity</i>	17	<i>Angrenes</i>	440
<i>Fate</i>	185	<i>Gargarisma</i>	402
<i>Fates</i>	78	<i>Gauging</i>	508
<i>Fauns</i>	75	<i>Gaulonites</i>	44
<i>Feasts, Moveable</i>	279	<i>Gemara</i>	38
<i>Fest, Poetical</i>	198	<i>Genders of Nouns</i>	111
<i>Felony</i>	482	<i>Generation, Parts of, in Men</i>	382
<i>Fermentation</i>	410	<i>— in Women</i>	383
<i>Feronia</i>	76	<i>Generation</i>	188
<i>Festivals, Jewish</i>	41	<i>Genethliacon</i>	213
<i>— Heathen</i>	81	<i>Genii</i>	76, 81
<i>Feuds</i>	473	<i>Genital Parts of Plants</i>	355
<i>Fibrous Root</i>	352	<i>Gentry</i>	466
<i>Fidelity</i>	17	<i>Genus</i>	154
<i>Figurability</i>	318	<i>Geodesia</i>	508
<i>Figures of Nouns</i>	110	<i>Geography</i> 230 & seq.	334
<i>— Words</i>	140	<i>— Special</i>	233
<i>— Sentences</i>	141	<i>Geology</i>	334
<i>— Syllogisms</i>	167	<i>Geometry</i>	505
<i>Filtration</i>	409	<i>Georgics</i>	200
<i>Finite</i>	189	<i>Germany</i>	247
<i>Fistula's</i>	439	<i>Geryon</i>	79
<i>Fixity</i>	323	<i>— what</i>	94
<i>Flora</i>	75	<i>Giants</i>	80
<i>Florida</i>	257	<i>Glands</i>	372
<i>Flowers of Plants</i>	354	<i>Glysters</i>	404
<i>— Official</i>	391	<i>Gold</i>	335
<i>Fluidity</i>	323	<i>Golden Number</i>	275
<i>Fomentations</i>	403	<i>God, his Existence proved</i>	3 & seq.
<i>Fornication</i>	16	<i>— his Attributes</i>	7
<i>Fortification</i>	509	<i>— a Spirit</i>	180
<i>Fortitude</i>	14	<i>— Son of</i>	ib.
<i>Fossils</i>	335	<i>Goodness</i>	194
<i>Fossil Kingdom</i>	407	<i>Gorgons</i>	79
<i>Fractures</i>	441	<i>— what</i>	94
<i>France, Geography of</i>	245, 248	<i>Goths and Ostrogoths</i>	304
<i>— History of</i>	307	<i>Gothic</i>	

INDEX.

Gothic Tongue	102
Government, Jewish	47
— what	447, 452
Grammar	100 & seq.
— defined	105
Graminiferous Plants	350
Granada	257
Granelous Root	352
Gravity	318, 319
Great-Britain, Polity of	453
Greece	250
Grecian Monarchy	299
Greek Church	29
— Tongue	102
Gregorian Year	266
Grumous Root	352
Guinea	255
Gulph	234
Gunnery	510

H

H <i>Ades</i>	77
<i>Hail</i>	333
<i>Halo's</i>	334
<i>Hamadryades</i>	76
<i>Handed Root</i>	35
<i>Hardness</i>	323
<i>Harpies</i>	79
<hr/> what	94
<i>Hatchments</i>	496
<i>Hatred</i>	18
<i>Health</i>	415
<i>Heart</i>	378
<i>Heat</i>	324
<i>Heavens, Mahometan</i>	57
	& seq.
<i>Hebrew Tongue</i>	101
<i>Hebrews</i>	36
<i>Hegira</i>	60
<i>Heliography</i>	325
<i>Hell, Mahometan</i>	54
<i>Hellenism</i>	145
<i>Hendyades</i>	143
<i>Heraldry</i>	484 & seq.
<i>Heralds</i>	499, 500
<i>Herbs, Official</i>	390
<i>Heresy</i>	29

<i>Herefiarch</i>	<i>ib.</i>
<i>Hermetic Art</i>	407
<i>Herodians</i>	44
<i>Heroic Poem</i>	209
<i>Hesiod and Moses</i>	84
<i>Hesperus</i>	95
<i>Hesperides</i>	<i>ib.</i>
<i>Heterodoxy</i>	29
<i>Heteroscii</i>	238
<i>Hierarchy</i>	180
<i>Historiography, and Histori-</i> <i>blogy</i>	284
———— <i>Mosaical</i>	284, 285
<i>History</i>	284 & seq.
<i>Holy Ghost</i>	180
<i>Homoiooteleuton</i>	141
<i>Honeys</i>	395
<i>Honorius</i>	304
<i>Horizon</i>	235
<i>Hospitality</i>	19
<i>Hours, Kinds of</i>	271
<i>Humanity</i>	17
<i>Humility</i>	324
<i>Hungary, Geography of</i>	246,
	249
———— <i>History of</i>	308
<i>Husband</i>	447
<i>Hydrography</i>	230, 334, 335
<i>Hygieina</i>	425
<i>Hymnody</i>	203
<i>Hypallage</i>	145
<i>Hyperbaton</i>	<i>ib.</i>
<i>Hyperbola</i>	507
<i>Hyperbole</i>	139
<i>Hyphen</i>	145
<i>Hypotiposis</i>	141
<i>Hysterics</i>	430
<i>Hysteron-proteron</i>	145

I

<i>Amis</i>	72
— who	90
<i>Japan</i>	314
<i>Ideas</i>	150, 153
<i>Identity</i>	186
<i>Idolatry</i> of the Jews	45
— Heathens	65 & seq.
<i>M m</i>	<i>Idolatry</i>

I N D E X.

<i>Idolatry, Species of</i>	67	<i>Judicial Subjects</i>	131
<i>Ice</i>	333	<i>Julian Year</i>	266
<i>Jews</i>	36	<i>Juleps</i>	402
<i>Ignis fatuus</i>	334	<i>Juliferous Trees</i>	351
<i>Immensty</i>	189	<i>Junco</i>	70
<i>Impossibility</i>	185	— Means the Air	88
<i>Inactivity</i>	319	<i>Jupiter</i>	68
<i>Incest</i>	16	— his Fable explain'd	86
<i>Incommunicability</i>	188	— the Planet	328
<i>Incorporation</i>	411	<i>Jurisprudence</i>	467 & seq.
<i>Incorruptibility</i>	187	<i>Justice and its Opposites</i>	16
<i>Incrementum</i>	142	<i>Justice, twofold</i>	467
<i>Indefinite</i>	189	<i>Justice of the Peace</i>	462
<i>Independants</i>	34	<i>Ixion</i>	80
<i>Independency</i>	187		
<i>India</i>	251		
<i>Indications</i>	429		
<i>Indiction, Cycle of</i>	281	K <i>Arrites</i>	43
<i>Induction</i>	173	<i>Kidneys</i>	381
<i>Infernal Stone</i>	401	<i>King of Great-Britain</i>	454
<i>Infidelity</i>	17	<i>King's-Bench</i>	460
<i>Infinity</i>	189	<i>Kings at Arms</i>	499
<i>Inflammations</i>	440	<i>Kirjath-Shema</i>	40
<i>Infusions, Officinal</i>	393	<i>Knight</i>	465
<i>Iniquity</i>	17	<i>Knowledge</i>	165
<i>Injections</i>	440		
<i>Inspissated Juices</i>	395	L	
<i>Institutes</i>	472		
<i>Integuments of the Body</i>	368	<i>Acedemon, State of</i>	295
<i>Interjection</i>	119	<i>Laciniated Leaves</i>	354
<i>Intestines</i>	380	<i>Lactiferous Plants</i>	348
<i>Invention</i>	127	<i>Lakes</i>	234, 340
<i>Inversion</i>	142	<i>Lamiae</i>	79
<i>Joints of Plants</i>	352	<i>Land</i>	234
<i>Iphigenia</i>	96	<i>Language</i>	100 & seq.
<i>Iron</i>	336	— logically considered	155
<i>Irony</i>	139	<i>Lapis de Goa</i>	401
<i>Islands</i>	234	<i>Lares</i>	81
<i>Israelites</i>	36	<i>Latin Tongue</i>	102
<i>Isthmus</i>	234	<i>Latitude</i>	235
<i>Italy, Geography of</i>	245, 249	<i>Latona</i>	71
— History of	307	<i>Law, Divine and Human</i>	13
<i>Judaism</i>	36	— Written and Oral	37
<i>Judicature, Courts of</i>	459, 480	— Moral and Ceremonial	39
<i>Judges, Infernal</i>	78	— of Nature	468
<i>Judgment</i>	149	<i>Law</i>	

I N D E X.

<i>Law of Nations</i>	468	<i>Maleficence</i>	18
— Civil	469	<i>Malivolence</i>	<i>ib.</i>
— Feudal	473	<i>Mamelucks</i>	312
— Roman	470	<i>Manners</i>	127
— of <i>England</i>	478	— Poetic	207, 208,
— Common	<i>ib.</i>		210
— Statute	<i>ib.</i>	<i>Manfuetude</i>	18
— Canon	479	<i>Mars</i>	69
— Martial	<i>ib.</i>	— his Fable explain'd	88
— Forest	<i>ib.</i>	<i>Marquis</i>	464
<i>Lead</i>	336	<i>Marshal, Earl</i>	458
<i>Leaves of Plants</i>	353	<i>Marshalling</i>	484
<i>Leguminous Plants</i>	350	<i>Masorites</i>	44
<i>Lethe</i>	81	<i>Masters</i>	450
<i>Letters</i>	100	<i>Materia Medica</i>	429
— how divided	105	<i>Matter</i>	181, 182, 184, 317,
<i>Lexicon</i>	100		& seq.
<i>Libations</i>	40	<i>Mathematics</i>	501 & seq.
<i>Liberality</i>	19	<i>Mathefis</i>	501
<i>Libitina</i>	81	<i>Mayor and Aldermen</i>	463
<i>Life</i>	415	<i>Mechanics</i>	512
<i>Light</i>	321	<i>Medicated Wines</i>	395
<i>Limniades</i>	77	<i>Medicine, Art of</i>	414 & seq.
<i>Limoniades</i>	76	<i>Medicine, Classes of</i>	430
<i>Linctus's</i>	402	<i>Membranes</i>	369
<i>Lines in Heraldry</i>	489	<i>Menstruums</i>	412
<i>Liniments</i>	403	<i>Mensurability</i>	319
<i>Liver</i>	381	<i>Mensuration</i>	507
<i>Litotes</i>	139	<i>Mercy</i>	18
<i>Locality</i>	193	<i>Mercury</i>	70
<i>Logarithms</i>	503	— his Fable explain'd	87
<i>Logic</i>	149 & seq.	— the Metal	336
<i>Lombards</i>	304	<i>Meridian</i>	235
<i>Longanimity</i>	19	<i>Mesentery</i>	380
<i>Longimetry</i>	508	<i>Mesra</i>	56
<i>Longitude</i>	235	<i>Metalepsis</i>	139
<i>Lotions</i>	402	<i>Metals</i>	335
<i>Lozenges</i>	397	<i>Metaphor</i>	138
<i>Lungs</i>	377	<i>Metaphysics</i>	176 & seq.
<i>Lustrum</i>	271	<i>Metathefis</i>	144
<i>Lyric Poetry</i>	202	<i>Meteorography</i>	332
		<i>Method, Art of</i>	174
		<i>Metonymy</i>	138
		<i>Metre</i>	196
		<i>Mexico</i>	257
		<i>Midas</i>	98
		<i>Mind</i>	184

M

M <i>Agnetism</i>	319
<i>Mahomet</i>	151 & seq.
<i>Mahometanism</i>	<i>ib.</i>
<i>Mahometan Empire</i>	310

I N D E X.

<i>Minerva, or Pallas</i>	71	<i>Nature of Things</i>	183
— means Wisdom	88	— Laws of	320
<i>Mineralogy</i>	335	<i>Navigation</i>	509
<i>Ministers, Christian</i>	28	<i>Necessity</i>	185
<i>Minutes, or Scruples</i>	271	<i>Nectar</i>	81
<i>Mists and Fogs</i>	333	<i>Negation</i>	152
<i>Mobility</i>	318	<i>Negroland</i>	255
<i>Modes</i>	151	<i>Nemesis</i>	74
— of Being	182	<i>Nepææ</i>	76
<i>Modesty</i>	15	<i>Neptune</i>	ib.
<i>Moguls</i>	313	<i>Nereus</i>	77
<i>Monarchy</i>	452	<i>Nereides</i>	ib.
<i>Monarchies, the Chief</i>	292	<i>Neurology</i>	384
& seq.		<i>Nibility</i>	152
<i>Monospermous Plants</i>	348	<i>Nimrod</i>	292
<i>Momus</i>	73	<i>Ninus</i>	66
— what he means	98	<i>Nisus and his Daughter</i>	97
<i>Months, Kinds of</i>	267, & seq.	<i>Noah, Precepts of</i>	39
<i>Moods of Verbs</i>	113	— Sons of	286
— of Syllogism	168	<i>Nobility</i>	464
<i>Moon, Age and Southing of</i>	279	<i>Nodules</i>	405
		<i>Non-entity</i>	152
<i>Morality</i>	9	<i>Non-naturals</i>	418
<i>Morosity</i>	18	<i>Norway, Geography of</i>	243,
<i>Moses and Hefod</i>	84		246
<i>Mosses</i>	347	— History of	310
<i>Mountains</i>	262	<i>Nose</i>	375
<i>Mouth</i>	376	<i>Nosologia</i>	416
<i>Multisliquous Plants</i>	349	<i>Nouns</i>	109
<i>Muscles</i>	370	— English, declined	111
<i>Muscovy, Geography of</i>	243,	<i>Nubia</i>	256
	247	<i>Number, Metaphysical</i>	192
— History of	309	— Golden	275
<i>Muses</i>	74	<i>Numbers of Nouns</i>	110
<i>Music</i>	510	— Poetical	198
<i>Mycene</i>	296	<i>Nymphs</i>	76
<i>Myology</i>	369		
<i>Mythology</i>	84 & seq.		

N

N <i>Ænia</i>	214
<i>Naiades</i>	77
<i>Narcotics</i>	431
<i>Narcissus</i>	97
<i>Narration</i>	134
<i>Natolia</i>	252
<i>Nature</i>	

O

O <i>Objects</i>	192
<i>Oceans</i>	234, 262
<i>Oceanus</i>	76
<i>Odacer</i>	304
<i>Ode, or Song</i>	198, 203
<i>Odours</i>	324
<i>Oeconomics</i>	445 & seq.
<i>Oesophagus</i>	377
<i>Officers, Great</i>	456
<i>Official</i>	

I N D E X.

<i>Officinal Simples</i>	390	<i>Paraguay</i>	259
<i>Oils, Officinal</i>	393	<i>Parallels of Latitude</i>	235.
<i>Ointments</i>	399		237
<i>Oligarchy</i>	452	<i>Paralogism</i>	173
<i>Olympiads</i>	272	<i>Parentheses</i>	144
<i>Omentum</i>	379	<i>Paræchesis</i>	141
<i>Ontology</i>	176 & seq.	<i>Paregmenon</i>	ib.
— recommended	195	<i>Paræce</i>	144
<i>Opacity</i>	323	<i>Parenchyma</i>	356
<i>Opinion</i>	165	<i>Parents</i>	448
<i>Optics</i>	511	<i>Parliament</i>	453, 459
<i>Oracles of God</i>	24	<i>Passions</i>	127
<i>Oratory</i>	126 & seq.	<i>Pastoral Poetry</i>	200
<i>Order, Rhetorical</i>	138	<i>Pathognomic Characters</i>	421
— Metaphysical	193	<i>Pathology</i>	415
<i>Ordinaries in Heraldry</i>	487	<i>Pathopœia</i>	137
<i>Oreades</i>	76	<i>Pænates</i>	81
<i>Ores</i>	335	<i>Peninsula</i>	234
<i>Orpheus</i>	94	<i>Pennated Leaves</i>	354
<i>Orthodoxy</i>	29	<i>Perception</i>	149
<i>Orthoepy</i>	106	<i>Perfection</i>	194
<i>Orthography</i>	105	<i>Perfidy</i>	17
— Figures of	143	<i>Period</i>	121
<i>Osteology</i>	359	<i>Periods of Time, divers</i>	279
<i>Osteogony</i>	360	<i>Pericæci</i>	238
<i>Osteography</i>	361	<i>Periphrasis</i>	143
<i>Ottoman Empire</i>	311	<i>Periscii</i>	238
<i>Ovarium in Plants</i>	355	<i>Permanency</i>	191
<i>Oxymoron</i>	142	<i>Peroration</i>	136

P

P aganism	65 & seq.	<i>Persian Monarchy</i>	293, 297
<i>Palemon</i>	77	<i>Persons of Verbs</i>	114
<i>Pales</i>	75	— Division of	474
<i>Palinody</i>	213	<i>Perspective</i>	511
<i>Pan</i>	75	<i>Perस्पicity</i>	137
— what it means	92	<i>Pera</i>	258
<i>Pandora</i>	95	<i>Pessary</i>	406
<i>Panegyric</i>	213	<i>Petala</i>	355
<i>Pantheon</i>	81	<i>Phaeton</i>	96
<i>Parabola</i>	507	<i>Pharisees</i>	43
<i>Paradiastole</i>	141	<i>Pharmacopœia</i>	319
<i>Paradise, Mahometan</i>	54	<i>Pharmacopola</i>	ib.
— Heathen	80	<i>Pharmacy</i>	389 & seq.
<i>Paræmia</i>	140	<i>Philanthropy</i>	17
<i>Paragogue</i>	144	<i>Philosophy, Natural</i>	316
		<i>Phlebotomy</i>	387

M m 3

Pblegiæ.

INDEX.

<i>Phlegias</i>	80	<i>Powders</i>	398
<i>Phaethon</i>	78	<i>Power</i>	184
<i>Physic, or Medicine</i>	414	<i>Precipitation</i>	411
	& seq.	<i>Predicables</i>	152
<i>Physic</i>	316	<i>Predicaments</i>	ib.
<i>Physiology</i>	316 & seq. 414	<i>Predicate</i>	163
<i>Phytology</i>	337, 341	<i>Preposition</i>	119
<i>Pills</i>	398	<i>Presbyters</i>	29
<i>Pindaric Verse</i>	203	<i>Presbyterians</i>	34
<i>Pith of Plants</i>	352	<i>President, Lord</i>	457
<i>Place</i>	193	<i>Priapus</i>	75
<i>Plaster</i>	400, 403	<i>Priesthood, Jewish</i>	42
<i>Planetography</i>	326 & seq.	————— <i>Heathen</i>	81
<i>Plants, Origin and Sexes of</i>		<i>Prince of Wales</i>	456
	342 & seq.	<i>Principles of Things</i>	189
———— <i>Kinds of</i>	347 & seq.	<i>Privation</i>	152
<i>Pleonasm</i>	144	<i>Privy Council</i>	459
<i>Place</i>	140	<i>Privy-Seal, Lord</i>	457
<i>Plot, or Fable</i>	207	<i>Prognostics of a Disease</i>	421
<i>Pluto</i>	78	<i>Prolepsis</i>	142
<i>Plutus</i>	78	<i>Prologue</i>	206
———— <i>Moral of his Fable</i>	93	<i>Prometheus</i>	15
<i>Poem</i>	198	<i>Promontory</i>	234
<i>Poesy, Poetry</i>	196 & seq.	<i>Pronoun</i>	112
<i>Poet, Poetaster</i>	196	<i>Pronunciation</i>	146
<i>Points</i>	122	<i>Prophets</i>	28
<i>Points in Heraldry</i>	485	<i>Prophylactic Part of Physic</i>	
<i>Poland, Geography of</i>	244,		426
	248	<i>Proposition</i>	135
———— <i>History of</i>	309	———— <i>Logical</i>	162 & seq.
<i>Polar Circles</i>	235	<i>Proselytes</i>	44
<i>Poles</i>	234	<i>Proserpine</i>	78
<i>Polity</i>	445 & seq.	<i>Proseucha</i>	42
———— <i>British</i>	453 & seq.	<i>Prosody</i>	106
<i>Polygamy</i>	16	<i>Prosopæia</i>	143
<i>Polyptoton</i>	141	<i>Prosthesis</i>	144
<i>Polyspermous Plants</i>	349	<i>Prosyllogism</i>	172
<i>Poly syndeton</i>	144	<i>Protasis</i>	206
<i>Polytheism</i>	66	<i>Protestants</i>	33
<i>Pamiferous Plants</i>	349	<i>Proteus</i>	76
———— <i>Trees</i>	351	<i>Providence</i>	7
<i>Pomona</i>	76	<i>Prudence</i>	14
<i>Portugal, Geography of</i>	245,	<i>Pruniferous Plants</i>	351
	248	<i>Psalmody</i>	203
———— <i>History of</i>	307	<i>Ptolemys</i>	301
<i>Possibility</i>	185	<i>Publicans</i>	44
<i>Potamides</i>	77	<i>Pulse</i>	422
<i>Potians</i>	402	<i>Punishments, Jewish</i>	49
		<i>Punishments</i>	

I N D E X.

<i>Punishments, English</i>	482	<i>Sanhedrim</i>	48
<i>Pursuivants</i>	500	<i>Sap</i>	345
<i>Pyrotechny</i>	407	<i>Sapours</i>	325
Q		<i>Sarcology</i>	367
		<i>Sarcasm</i>	140
		<i>Satellites</i>	328
		<i>Saturn</i>	72
		— His Fable explain'd	85
		— The Planet	327
		<i>Satyrs</i>	75
		<i>Satyre</i>	204
		<i>Schism</i>	29
		<i>Sciagraphy</i>	511
<i>Quakers</i>	35	<i>Sclavonic Tongue</i>	103
<i>Quantities, Geometrical</i>	506	<i>Scribes</i>	43
<i>Quantity, discrete</i>	193	<i>Scriptures, their Use</i>	24
<i>Quartering</i>	495		& seq.
R		<i>Scylla and Charybdis</i>	77
		— what	93
		<i>Seed of Plants</i>	356
		<i>Seas</i>	234, 263, 338
		<i>Seculum</i>	272
		<i>Selenography</i>	326
		<i>Selucian Rings</i>	301
		<i>Semeiotics</i>	420
		<i>Sempiternity</i>	189
		<i>Sentence</i>	120
<i>Rain</i>	333	<i>Sentiments, Dramatic</i>	207,
<i>Rainbow</i>	334		209
<i>Ramose Leaves</i>	354	<i>Secrated Leaves</i>	354
<i>Rarity</i>	322	<i>Servants</i>	451
<i>Reason</i>	1	<i>Sex of Plants</i>	343, 355
<i>Reasoning, Art of</i>	149 & seq.	<i>Shadow</i>	183
<i>Refrigerants</i>	431	<i>Sheriffs</i>	462
<i>Relative Affection</i>	191	<i>Signs</i>	194
<i>Religion</i>	20	<i>Simples, Officinal</i>	390
— Christian <i>ib.</i> & seq.		<i>Silenus</i>	75
— Jewish 36 & seq.		<i>Siliqueous Plants</i>	350
— Mahometan 51		<i>Silver</i>	335
— & seq.		<i>Similitude</i>	186
— Pagan 65 & seq.		<i>Simplicity</i>	187
<i>Republic</i>	446, 452	<i>Sincerity</i>	14
<i>Respiration</i>	423	<i>Sinuated Leaves</i>	354
<i>Rest</i>	428	<i>Sirens</i>	77
<i>Revelation</i>	20	— what they mean	93
— Pretended 54		<i>Sisyphus</i>	80
<i>Rhetoric</i>	126 & seq.	<i>Sleep</i>	428
<i>Rhime</i>	196	<i>Snow</i>	333
<i>Rigidity</i>	323		
<i>Rivers</i>	234, 339		
<i>Roman Church</i>	31		
— Empire 302 & seq.			
— Laws 470			
<i>Roots of Plants</i>	351		
S			
<i>Saculus</i>	405		
<i>Sacrifices</i>	39, 83		
<i>Sadducees</i>	43		
<i>Samaritans</i>	ib.		

INDEX.

<i>Tenses of Verbs</i>	114	<i>Tumours</i>	438
<i>Terms, the Kinds of</i>	156	<i>Turks, their Origin</i>	311
<i>Terminus</i>	75	<i>Turundæ</i>	406
<i>Terra Firma</i>	258	<i>Typhon</i>	80
<i>Testaments, old and new</i>	21	<i>Tyranny</i>	453
—— Authority of	22,	<i>Tytyrus</i>	80
	23		
<i>Testiculated Root</i>	352	V	
<i>Thebes</i>	296	<i>Vacuum</i>	320
<i>Themes</i>	159	<i>Valves</i>	388
<i>Themis</i>	74	<i>Vapours</i>	332
<i>Theocracy</i>	452	<i>Valculiferous Plants</i>	350
<i>Theodosius</i>	303	<i>Ubiety</i>	193, 320
<i>Theogony, Hesiod's</i>	85	<i>Vegetable Kingdom</i>	408
<i>Theology</i>	20	<i>Vegetables</i>	182, 342
<i>Therapeutics</i>	429	<i>Vegetation</i>	342
<i>Things, Division of</i>	475	<i>Venus</i>	71
<i>Thunder and Lightening</i>	333	—— her Fable explain'd	89
<i>Tides</i>	338	<i>Veracity</i>	17
<i>Time, Metaphysical</i>	193	<i>Verb</i>	113
—— Physical	264	<i>Verity</i>	194
<i>Tin</i>	336	<i>Verticillated Plants</i>	349
<i>Tinctures</i>	396	<i>Verse</i>	196
—— in Heraldry	485	—— Blank	198
<i>Tmesis</i>	145	<i>Vertummus</i>	76
<i>Tongue</i>	376	<i>Vesta</i>	74
<i>Tongues, Mother</i>	101	—— means Fire	91
<i>Topics of the Diagnostics</i>	421	<i>Vice</i>	13
<i>Topics, General and Special</i>	128	<i>Virtue</i>	ib.
		<i>Viscera</i>	379
<i>Topography</i>	230	<i>Viscount</i>	464
<i>Trachea Arteria</i>	377	<i>Vitiations of the Body</i>	419
<i>Tragedy</i>	208	<i>Ulcers</i>	439
<i>Transparency</i>	323	<i>Umbelliferous Plants</i>	348
<i>Treason</i>	481	<i>Unity</i>	193
<i>Treasurer, Lord</i>	457	<i>Unities, Dramatic</i>	208, 209
<i>Trees, their Kinds</i>	351	<i>Vowels</i>	105
<i>Trigonometry</i>	508	<i>Urine</i>	424
<i>Triton</i>	76	<i>Utenfils</i>	413
<i>Triumvirate</i>	302	<i>Vulcan</i>	73
<i>Troches</i>	397	—— the same as Tubal-	
<i>Tropes</i>	138	cain	90
<i>Tropics</i>	235		
<i>Troy</i>	296		
<i>Truth,</i>	17, 165, 194		
<i>Tubalcain</i>	90		
<i>Tuberous Root</i>	352		

Waters

INDEX.

W

Y

W <i>Aters</i>	234	Y <i>Ear defined</i>	264
— Official	392	— Kinds of	265,
<i>Weeks</i>	270		268,269
<i>Whole, logical</i>	161		
<i>Wife</i>	448		
<i>Wines, Medicated</i>	395	Z <i>Aara</i>	255
<i>Wood</i>	353	<i>Zeugma</i>	145
<i>Words, the Kinds of</i>	157	<i>Zones</i>	235
<i>Wounds</i>	440	<i>Zoology</i>	337



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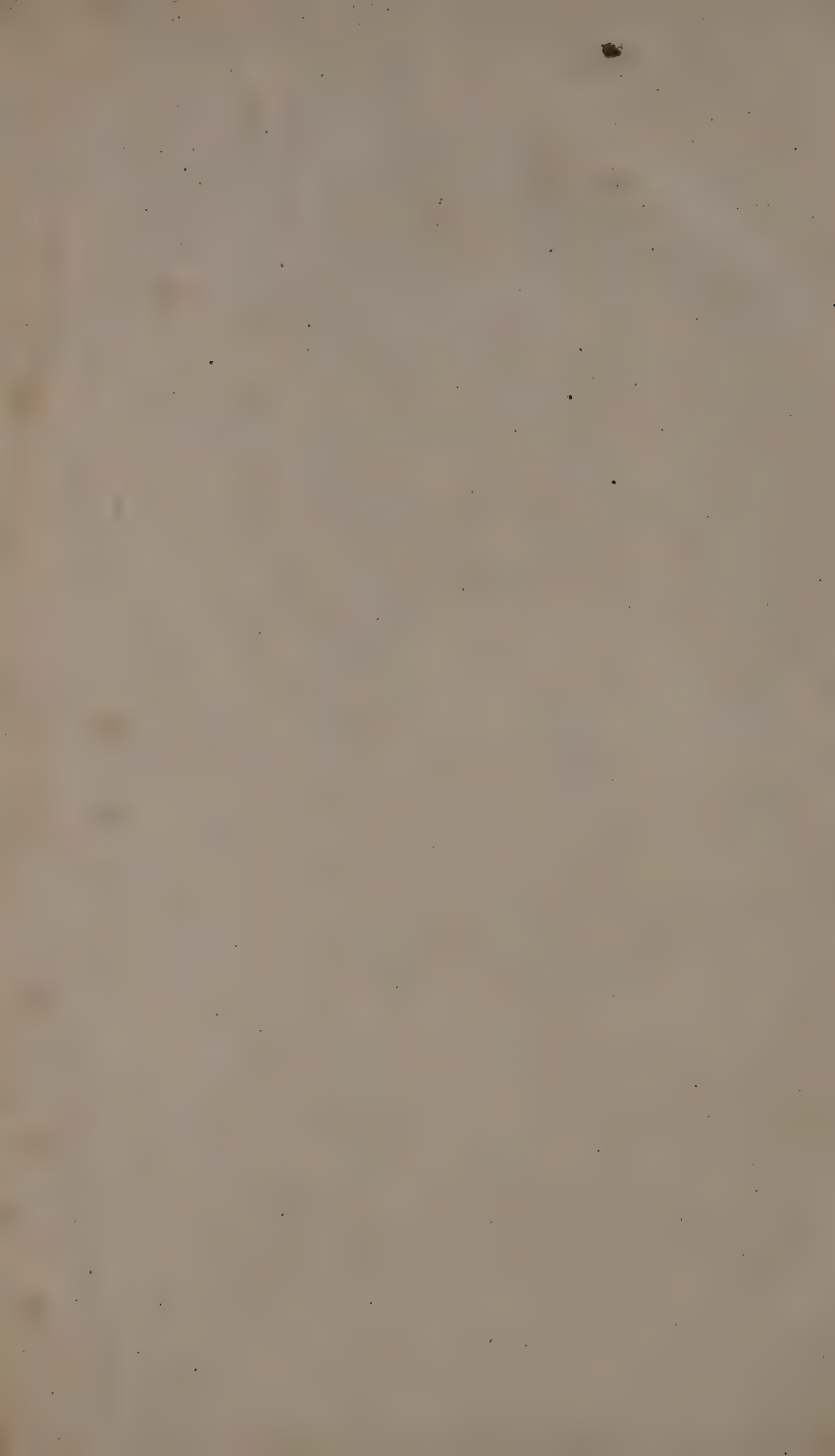
Its boundless Jurisdiction.

Its Officers, Laws, Customs.

Their Judgments, Tortures, Penances, &c.

Interspersed with many curious Relations of Persons who have suffered under their Arbitrary Power ; particularly that of Isaac Martin, an Englishman, who lay long in Prison at Granada, and was released by the Interposition of his late Majesty King GEORGE, whose Account has the Sanction of a Certificate signed by thirteen Bishops, at the Instance of Mr. Secretary Craggs. Price fitch'd Two Shillings.

F I N I S.





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